

EPHEMERIDES

5 5.9

5 6.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
36886	2000 SV ₁₆₁		5 5.9 295°93	5°2/ 2.1 18			505607	2014 DM ₁₁₃		5 5.9 95°53	0°4/ 6.4 17		
4 1	15 15.47	- 2 17.0	2.153	3.002	11.9	18.8	4 1	15 17.12	-19 39.7	2.358	3.184	11.8	22.3
4 11	15 10.81	- 1 38.1	2.077	2.995	9.2	18.6	4 11	15 11.82	-19 21.5	2.294	3.204	8.9	22.1
4 21	15 4.36	- 1 2.4	2.024	2.988	6.7	18.4	4 21	15 4.85	-18 55.0	2.253	3.223	5.6	22.0
5 1	14 56.73	- 0 34.3	1.998	2.981	5.2	18.3	5 1	14 56.87	-18 21.9	2.240	3.243	2.0	21.7
5 11	14 48.70	- 0 17.9	1.999	2.974	6.2	18.4	5 11	14 48.66	-17 45.3	2.255	3.262	1.7	21.8
5 21	14 41.07	- 0 15.9	2.026	2.967	8.7	18.5	5 21	14 40.99	-17 8.5	2.300	3.281	5.2	22.0
5 31	14 34.61	- 0 29.6	2.078	2.960	11.6	18.7	5 31	14 34.55	-16 35.3	2.371	3.299	8.4	22.2
6 10	14 29.87	- 0 58.6	2.151	2.954	14.2	18.8	6 10	14 29.82	-16 8.8	2.466	3.317	11.1	22.5
119600	2001 WM ₁₂		5 5.9 62°65	4°0/ 3.4 18			458838	2011 UP ₄₁		5 5.9 245°24	1°4/ 5.1 16		
4 1	15 17.29	- 8 32.8	1.629	2.488	14.6	19.3	4 1	15 18.89	-16 58.8	1.521	2.373	15.8	22.0
4 11	15 12.55	- 7 46.8	1.568	2.497	10.9	19.0	4 11	15 14.25	-16 7.3	1.437	2.363	12.0	21.8
4 21	15 5.56	- 6 59.1	1.530	2.505	7.1	18.8	4 21	15 6.93	-15 2.6	1.374	2.352	7.4	21.5
5 1	14 57.13	- 6 14.8	1.517	2.514	4.2	18.7	5 1	14 57.70	-13 48.8	1.337	2.341	2.6	21.2
5 11	14 48.34	- 5 39.5	1.530	2.523	5.4	18.8	5 11	14 47.76	-12 32.6	1.325	2.330	3.4	21.2
5 21	14 40.23	- 5 17.4	1.569	2.533	8.9	19.0	5 21	14 38.40	-11 21.5	1.340	2.318	8.5	21.4
5 31	14 33.73	- 5 11.2	1.632	2.542	12.6	19.2	5 31	14 30.79	-10 23.1	1.378	2.306	13.2	21.7
6 10	14 29.45	- 5 21.5	1.715	2.551	15.8	19.5	6 10	14 25.74	- 9 42.2	1.438	2.293	17.3	21.9
213528	2002 HV ₁₃		5 5.9 322°54	15°9/30.5 17			216805	2006 SU ₃₈₈		5 5.9 38°31	5°2/ 2.6 17		
4 1	15 26.22	+17 13.1	1.249	2.072	20.3	19.6	4 1	15 16.34	- 2 30.9	2.000	2.850	12.6	20.1
4 11	15 20.35	+17 52.3	1.178	2.050	18.2	19.4	4 11	15 11.47	- 1 59.9	1.937	2.857	9.7	20.0
4 21	15 11.01	+18 3.2	1.124	2.030	16.6	19.2	4 21	15 4.75	- 1 32.9	1.898	2.863	6.9	19.8
5 1	14 59.13	+17 33.5	1.090	2.010	15.9	19.1	5 1	14 56.86	- 1 14.2	1.885	2.870	5.2	19.7
5 11	14 46.25	+16 15.9	1.076	1.991	16.8	19.0	5 11	14 48.65	- 1 7.6	1.899	2.878	6.1	19.8
5 21	14 34.07	+14 10.4	1.083	1.973	19.0	19.1	5 21	14 40.98	- 1 15.1	1.939	2.885	8.7	19.9
5 31	14 24.15	+11 24.1	1.109	1.956	21.8	19.2	5 31	14 34.61	- 1 37.6	2.004	2.893	11.6	20.1
6 10	14 17.47	+ 8 8.6	1.153	1.940	24.7	19.4	6 10	14 30.08	- 2 14.3	2.090	2.901	14.2	20.3
437094	2012 UU ₈₆		5 5.9 226°29	2°0/ 4.4 18			179683	2002 QY ₈₇		5 5.9 183°66	3°5/ 8.2 17		
4 1	15 16.20	-12 31.2	2.142	2.987	12.1	21.5	4 1	15 21.39	-26 38.4	1.869	2.680	15.0	21.7
4 11	15 11.42	-11 55.8	2.059	2.982	9.1	21.2	4 11	15 15.80	-26 48.8	1.786	2.680	11.9	21.5
4 21	15 4.77	-11 15.6	2.000	2.976	5.6	21.0	4 21	15 7.73	-26 44.4	1.724	2.680	8.3	21.3
5 1	14 56.87	-10 33.6	1.968	2.971	2.5	20.8	5 1	14 57.94	-26 24.1	1.688	2.680	4.7	21.1
5 11	14 48.56	- 9 54.1	1.965	2.965	3.3	20.9	5 11	14 47.54	-25 49.8	1.678	2.679	3.7	21.0
5 21	14 40.66	- 9 20.9	1.989	2.959	6.8	21.1	5 21	14 37.71	-25 5.4	1.696	2.678	6.6	21.2
5 31	14 33.98	- 8 57.4	2.038	2.953	10.3	21.3	5 31	14 29.53	-24 17.0	1.740	2.676	10.3	21.4
6 10	14 29.09	- 8 46.0	2.111	2.946	13.3	21.4	6 10	14 23.73	-23 31.1	1.806	2.674	13.8	21.6
466596	2014 UK ₁₆₉		5 5.9 99°15	2°4/ 7.6 17			392155	2009 HH ₆₉		5 5.9 334°45	0°6/ 5.6 15		
4 1	15 19.27	-24 36.9	1.617	2.447	16.1	21.7	4 1	15 13.55	-16 5.7	1.712	2.567	14.2	21.0
4 11	15 14.34	-24 24.7	1.545	2.453	12.5	21.4	4 11	15 10.03	-15 52.2	1.624	2.552	10.7	20.8
4 21	15 6.82	-23 56.3	1.494	2.460	8.3	21.2	4 21	15 4.22	-15 30.9	1.558	2.537	6.7	20.5
5 1	14 57.60	-23 12.4	1.467	2.466	4.0	21.0	5 1	14 56.78	-15 4.0	1.518	2.522	2.2	20.2
5 11	14 47.87	-22 16.7	1.467	2.472	2.9	20.9	5 11	14 48.69	-14 35.3	1.503	2.509	2.6	20.2
5 21	14 38.88	-21 15.3	1.493	2.479	6.9	21.2	5 21	14 41.02	-14 9.0	1.513	2.496	7.2	20.4
5 31	14 31.70	-20 15.5	1.544	2.485	11.1	21.4	5 31	14 34.76	-13 49.6	1.548	2.484	11.4	20.6
6 10	14 27.03	-19 23.7	1.617	2.491	14.8	21.7	6 10	14 30.68	-13 40.7	1.605	2.473	15.2	20.8
386844	2010 JL ₁₇₇		5 5.9 54°40	8°9/29.2 18			216237	2006 UZ ₂₈₆		5 5.9 212°68	0°8/ 5.3 18		
4 1	15 15.50	+ 6 0.9	1.873	2.718	13.6	20.2	4 1	15 15.20	-15 32.4	2.833	3.663	9.9	21.3
4 11	15 10.91	+ 7 17.5	1.823	2.725	11.2	20.1	4 11	15 10.28	-15 5.8	2.741	3.656	7.4	21.1
4 21	15 4.41	+ 8 23.6	1.795	2.732	9.4	20.0	4 21	15 3.92	-14 33.8	2.675	3.648	4.6	20.9
5 1	14 56.73	+ 9 12.3	1.793	2.739	8.9	20.0	5 1	14 56.59	-13 58.4	2.636	3.640	1.6	20.7
5 11	14 48.76	+ 9 38.3	1.814	2.747	10.0	20.0	5 11	14 48.93	-13 22.3	2.628	3.632	2.0	20.7
5 21	14 41.40	+ 9 39.4	1.860	2.754	12.0	20.2	5 21	14 41.58	-12 48.4	2.648	3.623	5.0	20.9
5 31	14 35.41	+ 9 15.9	1.927	2.762	14.3	20.3	5 31	14 35.14	-12 19.6	2.697	3.614	7.9	21.1
6 10	14 31.33	+ 8 30.7	2.013	2.770	16.5	20.5	6 10	14 30.08	-11 58.4	2.769	3.604	10.5	21.3
97410	2000 AW ₁₄₈		5 5.9 199°02	3°3/ 2.8 18			164470	2006 DN ₂₀₀		5 5.9 348°31	2°7/ 4.3 17		
4 1	15 16.40	- 6 55.6	2.706	3.544	10.1	21.1	4 1	15 15.54	-15 3.4	1.259	2.129	17.2	19.7
4 11	15 11.15	- 6 8.2	2.623	3.539	7.6	20.9	4 11	15 12.01	-13 57.9	1.191	2.126	12.9	19.4
4 21	15 4.42	- 5 19.8	2.566	3.534	5.1	20.7	4 21	15 5.61	-12 39.6	1.143	2.124	8.0	19.1
5 1	14 56.73	- 4 33.9	2.537	3.529	3.4	20.6	5 1	14 57.26	-11 15.2	1.118	2.122	3.3	18.8
5 11	14 48.73	- 3 54.3	2.537	3.522	4.3	20.6	5 11	14 48.28	- 9 53.4	1.118	2.120	4.7	18.9
5 21	14 41.06	- 3 24.0	2.567	3.515	6.7	20.8	5 21	14 40.06	- 8 43.2	1.142	2.119	9.8	19.2
5 31	14 34.36	- 3 5.2	2.623	3.507	9.4	20.9	5 31	14 33.82	- 7 52.0	1.188	2.118	14.6	19.4
6 10	14 29.09	- 2 59.0	2.702	3.499	11.7	21.1	6 10	14 30.32	- 7 23.4	1.253	2.118	18.8	19.7
435054	2006 WZ ₁₃₇		5 5.9 245°59	0°3/ 5.7 16			198927	2005 UO ₂₁₆		5 6.0 195°95	1°1/ 5.5 18		
4 1	15 15.37	-17 5.7	2.513	3.345	11.0	22.2	4 1	15 23.41	-14 38.0	1.578	2.423	15.7	20.5
4 11	15 10.63	-16 43.1	2.418	3.333	8.3	22.0	4 11	15 17.53	-14 31.2	1.500	2.422	11.8	20.2
4 21	15 4.23	-16 13.5	2.347	3.321	5.1	21.8	4 21	15 8.91	-14 18.0	1.444	2.420	7.4	20.0
5 1	14 56.70	-15 38.8	2.304	3.308	1.7	21.5	5 1	14 58.37	-14 0.4	1.413	2.417	2.5	19.6
5 11	14 48.75	-15 1.9	2.290	3.295	1.9	21.5	5 11	14 47.14	-13 41.9	1.409	2.414	3.1	19.7
5 21	14 41.11	-14 26.1	2.304	3.282	5.4	21.7	5 21	14 36.53	-13 26.6	1.432	2.410	7.9	20.0
5 31	14 34.50	-13 54.9	2.346	3.269	8.7	21.9	5 31	14 27.73	-13 18.6	1.479	2.406	12.5	20.2
6 10	14 29.45	-13 31.3	2.411	3.255	11.5	22.1	6 10	14 21.54	-13 21.1	1.547	2.401	16.4	20.4
416369	2003 SS ₄₂₈		5 5.9 245°38	1°1/ 5.2 17			227485	2005 XF ₁₃		5 6.0 261°84	2°5/ 4.2 18		
4 1	15 18.26	-17 6.9											

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
17168	1999 <i>NP</i> ₃		5 6.0 57°01'	2.7/ 8.1	18		308008	2004 <i>RN</i> ₁₅₀		5 6.0 318°56'	5.2/ 2.9	17	
4 1	15 17.30	-26 49.0	1.613	2.439	16.3	16.9	4 1	15 13.26	-10 23.9	1.114	1.999	17.9	20.0
4 11	15 12.75	-26 17.8	1.550	2.455	12.7	16.7	4 11	15 10.83	-9 13.4	1.034	1.977	13.6	19.6
4 21	15 5.75	-25 27.5	1.508	2.471	8.5	16.4	4 21	15 5.25	-7 52.7	0.974	1.955	8.9	19.3
5 1	14 57.23	-24 20.0	1.490	2.487	4.4	16.2	5 1	14 57.27	-6 29.9	0.935	1.935	5.4	19.0
5 11	14 48.38	-23 0.4	1.499	2.503	3.1	16.2	5 11	14 48.26	-5 15.8	0.919	1.915	7.3	19.1
5 21	14 40.37	-21 36.0	1.534	2.520	6.6	16.4	5 21	14 39.76	-4 20.3	0.924	1.896	12.4	19.3
5 31	14 34.17	-20 15.1	1.594	2.536	10.7	16.7	5 31	14 33.28	-3 50.8	0.949	1.877	17.6	19.5
6 10	14 30.38	-19 4.5	1.677	2.553	14.2	17.0	6 10	14 29.83	-3 49.9	0.991	1.861	22.2	19.7
141385	2002 <i>AK</i> ₇₅		5 6.0 212°14'	0.6/ 5.5	17		521321	2015 <i>KM</i> ₁₇₁		5 6.0 57°59'	5.8/ 1.3	18	
4 1	15 15.51	-15 50.9	2.799	3.628	10.1	21.5	4 1	15 14.73	-0 40.3	2.184	3.032	11.8	20.8
4 11	15 10.54	-15 30.3	2.708	3.621	7.5	21.3	4 11	15 10.18	+0 14.1	2.118	3.033	9.2	20.7
4 21	15 4.09	-15 4.4	2.641	3.615	4.6	21.1	4 21	15 3.95	+1 4.4	2.077	3.035	6.9	20.5
5 1	14 56.66	-14 34.9	2.603	3.607	1.6	20.9	5 1	14 56.63	+1 45.5	2.061	3.037	5.8	20.4
5 11	14 48.88	-14 4.4	2.595	3.599	1.9	20.9	5 11	14 49.01	+2 13.1	2.073	3.038	6.8	20.5
5 21	14 41.41	-13 35.6	2.615	3.591	5.0	21.1	5 21	14 41.85	+2 24.5	2.111	3.040	9.1	20.6
5 31	14 34.87	-13 11.3	2.664	3.583	8.0	21.3	5 31	14 35.84	+2 18.3	2.173	3.042	11.7	20.8
6 10	14 29.75	-12 54.0	2.737	3.574	10.5	21.4	6 10	14 31.49	+1 55.4	2.256	3.043	14.0	21.0
477995	2011 <i>SC</i> ₁₃₂		5 6.0 220°65'	1.4/ 7.1	18		501767	2014 <i>UA</i> ₁₈₄		5 6.0 307°39'	1.0/ 5.6	17	
4 1	15 19.27	-21 12.7	2.785	3.594	10.6	21.5	4 1	15 17.87	-15 32.7	1.209	2.077	17.9	21.3
4 11	15 13.47	-21 31.0	2.687	3.586	8.2	21.3	4 11	15 14.54	-15 26.3	1.112	2.046	13.8	21.0
4 21	15 5.99	-21 42.5	2.614	3.577	5.4	21.1	4 21	15 7.79	-15 10.5	1.034	2.014	8.8	20.6
5 1	14 57.33	-21 47.1	2.569	3.568	2.5	20.9	5 1	14 58.24	-14 47.2	0.978	1.983	3.0	20.1
5 11	14 48.19	-21 45.7	2.554	3.559	1.9	20.8	5 11	14 47.21	-14 20.6	0.945	1.952	3.6	20.1
5 21	14 39.32	-21 39.9	2.568	3.549	4.8	21.0	5 21	14 36.35	-13 56.5	0.936	1.921	9.9	20.3
5 31	14 31.44	-21 32.3	2.611	3.539	7.7	21.2	5 31	14 27.40	-13 41.7	0.947	1.891	15.9	20.5
6 10	14 25.11	-21 25.8	2.679	3.528	10.4	21.3	6 10	14 21.67	-13 41.7	0.976	1.861	21.3	20.7
415292	2013 <i>GL</i> ₄₄		5 6.0 289°05'	3.3/ 4.0	17		215995	2005 <i>SR</i> ₁₇₈		5 6.0 237°25'	1.3/ 4.7	16	
4 1	15 17.41	-12 6.3	1.402	2.267	16.1	20.8	4 1	15 13.80	-14 53.5	2.516	3.355	10.7	21.2
4 11	15 13.39	-11 17.7	1.316	2.249	12.2	20.5	4 11	15 9.41	-14 7.1	2.428	3.348	8.0	21.0
4 21	15 6.55	-10 20.8	1.252	2.231	7.8	20.2	4 21	15 3.46	-13 14.3	2.365	3.340	4.9	20.8
5 1	14 57.64	-9 20.8	1.211	2.213	3.7	19.9	5 1	14 56.48	-12 18.0	2.330	3.333	1.9	20.6
5 11	14 47.85	-8 24.7	1.196	2.195	5.1	19.9	5 11	14 49.16	-11 22.1	2.323	3.325	2.6	20.6
5 21	14 38.55	-7 39.6	1.205	2.177	9.9	20.1	5 21	14 42.20	-10 30.6	2.346	3.318	5.8	20.8
5 31	14 31.01	-7 11.5	1.236	2.160	14.7	20.4	5 31	14 36.24	-9 47.3	2.395	3.310	8.9	21.0
6 10	14 26.13	-7 3.5	1.286	2.142	18.9	20.6	6 10	14 31.79	-9 14.7	2.468	3.301	11.6	21.2
431113	2006 <i>HJ</i> ₁₀		5 6.0 60°11'	5.4/ 1.7	17		468574	2007 <i>EH</i> ₁₅₅		5 6.0 295°96'	3.0/ 3.5	17	
4 1	15 14.71	-6 7.5	1.765	2.625	13.6	20.4	4 1	15 14.27	-13 55.6	1.690	2.548	14.2	20.7
4 11	15 10.43	-4 42.7	1.708	2.635	10.3	20.2	4 11	15 10.51	-12 31.5	1.603	2.533	10.6	20.4
4 21	15 4.18	-3 17.3	1.675	2.646	7.1	20.1	4 21	15 4.49	-10 55.9	1.539	2.518	6.6	20.1
5 1	14 56.68	-1 58.3	1.668	2.656	5.4	20.0	5 1	14 56.89	-9 14.6	1.502	2.503	3.3	19.9
5 11	14 48.91	-0 52.4	1.687	2.666	6.7	20.1	5 11	14 48.73	-7 35.9	1.491	2.489	4.7	20.0
5 21	14 41.77	+0 4.8	1.732	2.677	9.7	20.3	5 21	14 41.05	-6 8.0	1.507	2.474	8.9	20.2
5 31	14 36.06	+0 22.0	1.801	2.688	12.8	20.5	5 31	14 34.81	-4 57.7	1.547	2.460	13.0	20.4
6 10	14 32.32	+0 27.7	1.889	2.698	15.6	20.7	6 10	14 30.74	-4 8.9	1.608	2.446	16.6	20.6
303932	2005 <i>UZ</i> ₅₂₈		5 6.0 107°77'	0.4/ 6.3	17		6997	Laomedon		5 6.0 335°73'	2.4/ 2.4	18	
4 1	15 15.69	-18 43.9	2.446	3.275	11.3	21.3	4 1	15 7.63	-7 19.5	3.874	4.717	7.2	17.3
4 11	15 10.85	-18 36.7	2.367	3.279	8.5	21.1	4 11	15 4.31	-6 29.1	3.793	4.712	5.4	17.2
4 21	15 4.34	-18 22.4	2.312	3.284	5.4	20.9	4 21	15 0.09	-5 37.9	3.738	4.708	3.6	17.1
5 1	14 56.75	-18 2.3	2.285	3.288	1.9	20.7	5 1	14 55.31	-4 48.6	3.713	4.705	2.5	17.0
5 11	14 48.82	-17 38.7	2.286	3.292	1.7	20.7	5 11	14 50.35	-4 3.5	3.717	4.701	3.1	17.0
5 21	14 41.30	-17 14.5	2.315	3.296	5.1	20.9	5 21	14 45.60	-3 25.1	3.750	4.697	4.9	17.1
5 31	14 34.89	-16 52.9	2.371	3.301	8.3	21.1	5 31	14 41.43	-2 55.0	3.810	4.694	6.7	17.3
6 10	14 30.11	-16 36.7	2.452	3.305	11.1	21.3	6 10	14 38.15	-2 34.3	3.894	4.690	8.5	17.4
145435	2005 <i>QU</i> ₈₇		5 6.0 310°09'	0.4/ 6.3	17		234805	2002 <i>QY</i> ₈₅		5 6.0 302°97'	3.5/ 3.6	18	
4 1	15 13.86	-20 34.6	2.118	2.953	12.6	19.7	4 1	15 16.36	-8 21.9	1.949	2.801	12.8	20.3
4 11	15 9.79	-19 58.5	2.030	2.945	9.6	19.5	4 11	15 11.69	-7 47.9	1.874	2.798	9.7	20.1
4 21	15 3.83	-19 10.9	1.966	2.938	6.1	19.3	4 21	15 5.03	-7 12.5	1.822	2.796	6.3	19.9
5 1	14 56.61	-18 14.2	1.928	2.931	2.2	19.0	5 1	14 57.06	-6 39.7	1.796	2.793	3.7	19.7
5 11	14 48.96	-17 12.3	1.917	2.924	1.9	19.0	5 11	14 48.65	-6 13.8	1.797	2.790	4.7	19.8
5 21	14 41.74	-16 10.2	1.935	2.917	5.9	19.2	5 21	14 40.71	-5 58.2	1.825	2.788	7.9	20.0
5 31	14 35.75	-15 13.2	1.979	2.911	9.5	19.4	5 31	14 34.09	-5 55.6	1.878	2.785	11.4	20.2
6 10	14 31.58	-14 25.7	2.045	2.904	12.7	19.6	6 10	14 29.38	-6 6.8	1.952	2.783	14.4	20.4
504510	2008 <i>PO</i> ₁₉		5 6.0 147°05'	11.0/14.1	17		97241	1999 <i>XR</i> ₈₄		5 6.0 129°15'	0.7/ 6.6	18	
4 1	15 27.51	-46 58.7	2.100	2.792	17.1	21.8	4 1	15 17.64	-20 20.1	2.169	2.996	12.6	19.8
4 11	15 21.17	-48 20.0	2.020	2.796	15.4	21.7	4 11	15 12.48	-20 2.9	2.094	3.005	9.6	19.6
4 21	15 11.50	-49 18.6	1.958	2.799	13.5	21.6	4 21	15 5.43	-19 36.2	2.042	3.013	6.1	19.4
5 1	14 59.36	-49 47.8	1.917	2.802	11.9	21.5	5 1	14 57.17	-19 1.4	2.018	3.020	2.3	19.2
5 11	14 46.17	-49 44.3	1.899	2.805	11.1	21.4	5 11	14 48.56	-18 21.7	2.021	3.028	1.9	19.2
5 21	14 33.60	-49 9.4	1.904	2.808	11.3	21.4	5 21	14 40.47	-17 40.9	2.053	3.035	5.6	19.4
5 31	14 23.17	-48 9.0	1.931	2.810	12.5	21.5	5 31	14 33.69	-17 3.4	2.111	3.042	9.1	19.6
6 10	14 15.89	-46 52.6	1.981	2.812	14.2	21.6	6 10	14 28.78	-16 32.9	2.193	3.049	12.1	19.9
128297	Ashlevi		5 6.0 193°42'	0.4/ 6.3	18		385089	2012 <i>UG</i> ₁₇₁		5 6.0 313°51'	8.1/12.4	18	
4 1	15 16.71	-19 20.2											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
284137	2005 VZ ₈₈		5 6.0 166°00	2°5/ 4.6 18			491572	2012 RF ₁₂		5 6.0 214°42	0°9/ 5.1 18		
4 1	15 22.83	-11 57.2	1.621	2.469	15.2	21.7	4 1	15 15.83	-18 11.0	2.334	3.166	11.7	21.2
4 11	15 16.89	-11 29.8	1.550	2.474	11.4	21.4	4 11	15 11.04	-17 1.8	2.244	3.160	8.8	20.9
4 21	15 8.41	-10 57.5	1.502	2.477	7.1	21.2	4 21	15 4.53	-15 41.8	2.180	3.154	5.4	20.7
5 1	14 58.23	-10 24.2	1.478	2.481	3.1	20.9	5 1	14 56.89	-14 14.6	2.144	3.148	1.8	20.5
5 11	14 47.52	-9 54.4	1.482	2.483	4.0	21.0	5 11	14 48.91	-12 45.4	2.137	3.141	2.4	20.5
5 21	14 37.50	-9 32.5	1.513	2.485	8.3	21.3	5 21	14 41.37	-11 20.1	2.160	3.134	6.1	20.7
5 31	14 29.24	-9 22.4	1.569	2.487	12.5	21.5	5 31	14 34.97	-10 4.0	2.210	3.126	9.5	20.9
6 10	14 23.45	-9 25.9	1.645	2.487	16.1	21.7	6 10	14 30.26	-9 1.1	2.284	3.118	12.4	21.1
49915	2011 GN ₇₆		5 6.0 82°33	2°4/ 4.8 17			470896	2009 CR ₁₁		5 6.0 14°66	2°3/ 4.3 16		
4 1	15 21.36	-9 41.2	1.819	2.665	13.9	20.7	4 1	15 13.88	-13 1.8	1.777	2.634	13.6	21.0
4 11	15 15.54	-9 45.0	1.748	2.670	10.4	20.5	4 11	15 9.98	-12 16.2	1.708	2.637	10.2	20.8
4 21	15 7.47	-9 48.3	1.700	2.675	6.6	20.3	4 21	15 4.03	-11 24.5	1.662	2.640	6.3	20.6
5 1	14 57.90	-9 53.3	1.679	2.680	3.0	20.1	5 1	14 56.74	-10 31.1	1.641	2.644	2.8	20.4
5 11	14 47.86	-10 2.4	1.685	2.686	3.7	20.1	5 11	14 49.07	-9 41.1	1.647	2.648	3.8	20.5
5 21	14 38.40	-10 17.8	1.718	2.691	7.5	20.4	5 21	14 41.95	-8 59.7	1.680	2.653	7.6	20.7
5 31	14 30.48	-10 41.0	1.778	2.696	11.2	20.6	5 31	14 36.25	-8 30.8	1.737	2.658	11.3	20.9
6 10	14 24.74	-11 12.9	1.859	2.701	14.5	20.8	6 10	14 32.54	-8 16.7	1.815	2.663	14.6	21.1
121038	1999 CU ₁₀		5 6.0 150°39	13°3/ 17.5 18			512385	2016 NC ₆₆		5 6.0 224°87	4°0/ 2.7 18		
4 1	15 30.94	-52 8.8	1.799	2.467	20.3	18.6	4 1	15 16.43	-4 23.6	2.548	3.388	10.6	21.5
4 11	15 24.39	-53 10.8	1.723	2.474	18.5	18.5	4 11	15 11.34	-3 50.5	2.464	3.380	8.1	21.3
4 21	15 13.74	-53 42.1	1.662	2.480	16.5	18.4	4 21	15 4.66	-3 18.7	2.406	3.371	5.6	21.1
5 1	15 0.16	-53 34.4	1.619	2.485	14.7	18.2	5 1	14 56.94	-2 51.8	2.374	3.362	4.0	21.0
5 11	14 45.64	-52 44.1	1.596	2.490	13.5	18.2	5 11	14 48.85	-2 32.9	2.372	3.353	4.9	21.0
5 21	14 32.33	-51 13.9	1.596	2.495	13.4	18.2	5 21	14 41.10	-2 24.7	2.397	3.343	7.3	21.2
5 31	14 22.02	-49 13.2	1.617	2.499	14.3	18.2	5 31	14 34.34	-2 28.7	2.449	3.333	10.0	21.3
6 10	14 15.65	-46 55.8	1.660	2.503	16.0	18.4	6 10	14 29.08	-2 45.3	2.523	3.323	12.4	21.5
183498	2003 EN ₄₇		5 6.0 93°03	3°5/ 2.6 17			203797	2002 TH ₉₇		5 6.0 240°97	0°6/ 6.5 17		
4 1	15 16.44	-7 9.1	2.624	3.463	10.3	20.7	4 1	15 16.78	-19 49.2	2.178	3.007	12.5	21.0
4 11	15 11.00	-6 5.0	2.578	3.495	7.7	20.5	4 11	15 11.98	-19 35.7	2.089	3.001	9.5	20.8
4 21	15 4.23	-5 0.9	2.557	3.526	5.1	20.4	4 21	15 5.24	-19 12.9	2.024	2.995	6.0	20.6
5 1	14 56.71	-4 0.9	2.566	3.557	3.5	20.3	5 1	14 57.17	-18 42.2	1.985	2.988	2.3	20.3
5 11	14 49.10	-3 9.0	2.604	3.587	4.4	20.4	5 11	14 48.62	-18 6.3	1.975	2.982	1.9	20.3
5 21	14 42.04	-2 28.1	2.671	3.616	6.7	20.6	5 21	14 40.49	-17 29.1	1.992	2.975	5.7	20.5
5 31	14 36.04	-2 0.3	2.764	3.645	9.1	20.8	5 31	14 33.59	-16 54.8	2.036	2.968	9.3	20.7
6 10	14 31.50	-1 46.0	2.881	3.673	11.2	21.0	6 10	14 28.53	-16 27.3	2.104	2.961	12.5	20.9
127045	2002 GA ₄₂		5 6.0 258°92	2°5/ 7.6 17			124274	2001 QW ₂₀		5 6.0 149°18	5°3/ 8.9 18		
4 1	15 19.18	-23 40.5	1.902	2.725	14.3	20.2	4 1	15 23.71	-29 19.2	1.529	2.340	17.7	20.2
4 11	15 14.13	-23 53.5	1.817	2.721	11.2	20.0	4 11	15 18.15	-29 47.5	1.454	2.345	14.3	20.0
4 21	15 6.74	-23 54.7	1.754	2.717	7.5	19.7	4 21	15 9.51	-29 56.9	1.399	2.349	10.4	19.7
5 1	14 57.70	-23 43.5	1.716	2.714	3.8	19.5	5 1	14 58.70	-29 44.7	1.367	2.352	6.7	19.5
5 11	14 48.05	-23 21.7	1.706	2.710	2.9	19.4	5 11	14 47.12	-29 11.6	1.360	2.356	5.4	19.5
5 21	14 38.88	-22 52.8	1.722	2.706	6.3	19.6	5 21	14 36.31	-28 22.5	1.378	2.359	8.0	19.6
5 31	14 31.21	-22 21.5	1.764	2.702	10.1	19.8	5 31	14 27.61	-27 25.2	1.422	2.361	11.9	19.9
6 10	14 25.77	-21 53.3	1.829	2.698	13.6	20.0	6 10	14 21.87	-26 28.7	1.486	2.364	15.7	20.1
165292	2000 SZ ₃₆₇		5 6.0 226°07	3°0/ 3.9 16			432387	2009 WS ₂₃₈		5 6.0 264°36	2°8/ 4.3 17		
4 1	15 19.68	-11 34.6	1.797	2.645	13.9	21.5	4 1	15 18.34	-10 42.7	1.823	2.674	13.7	21.4
4 11	15 14.45	-10 42.5	1.712	2.635	10.5	21.2	4 11	15 13.46	-10 14.2	1.736	2.661	10.3	21.2
4 21	15 6.91	-9 44.2	1.649	2.625	6.6	21.0	4 21	15 6.32	-9 41.9	1.672	2.648	6.5	20.9
5 1	14 57.76	-8 44.0	1.613	2.614	3.3	20.8	5 1	14 57.58	-9 9.5	1.634	2.635	3.2	20.7
5 11	14 48.01	-7 47.9	1.605	2.602	4.5	20.8	5 11	14 48.22	-8 41.4	1.623	2.622	4.2	20.7
5 21	14 38.74	-7 1.4	1.623	2.589	8.4	21.0	5 21	14 39.28	-8 21.6	1.639	2.609	8.0	20.9
5 31	14 30.94	-6 29.1	1.666	2.576	12.4	21.2	5 31	14 31.74	-8 13.7	1.680	2.595	12.0	21.1
6 10	14 25.34	-6 13.6	1.731	2.562	15.9	21.4	6 10	14 26.33	-8 19.4	1.742	2.582	15.4	21.3
435961	2009 DU ₄₈		5 6.0 275°52	3°6/ 8.7 17			58610	1997 UN ₃		5 6.0 140°36	0°0/ 5.9 18		
4 1	15 17.39	-27 57.7	2.106	2.912	13.7	21.6	4 1	15 19.15	-19 5.9	2.152	2.980	12.7	19.9
4 11	15 12.67	-28 5.8	2.015	2.905	10.9	21.4	4 11	15 13.57	-18 35.3	2.080	2.992	9.6	19.7
4 21	15 5.77	-27 59.5	1.946	2.898	7.8	21.2	4 21	15 6.10	-17 55.3	2.031	3.003	5.9	19.5
5 1	14 57.37	-27 38.2	1.902	2.891	4.7	21.0	5 1	14 57.42	-17 8.2	2.009	3.013	2.0	19.3
5 11	14 48.40	-27 3.3	1.885	2.884	3.7	20.9	5 11	14 48.44	-16 17.6	2.017	3.023	2.0	19.3
5 21	14 39.86	-26 18.3	1.896	2.877	6.1	21.1	5 21	14 40.03	-15 28.2	2.052	3.032	5.8	19.5
5 31	14 32.70	-25 28.5	1.933	2.870	9.4	21.2	5 31	14 32.98	-14 44.3	2.115	3.041	9.3	19.8
6 10	14 27.59	-24 39.8	1.993	2.863	12.6	21.4	6 10	14 27.82	-14 9.5	2.202	3.049	12.4	20.0
196789	2003 SA ₁₈₉		5 6.0 258°18	0°2/ 5.9 18			435627	2008 SU ₁₂₅		5 6.0 190°26	1°2/ 4.9 17		
4 1	15 17.38	-17 13.6	1.997	2.835	13.1	20.5	4 1	15 16.54	-15 38.4	2.393	3.227	11.4	21.7
4 11	15 12.58	-16 58.9	1.909	2.827	9.9	20.3	4 11	15 11.51	-14 53.7	2.309	3.226	8.5	21.5
4 21	15 5.68	-16 36.2	1.845	2.819	6.2	20.1	4 21	15 4.81	-14 1.8	2.249	3.224	5.2	21.3
5 1	14 57.33	-16 7.4	1.807	2.811	2.1	19.8	5 1	14 57.00	-13 5.8	2.218	3.222	1.9	21.1
5 11	14 48.44	-15 35.7	1.797	2.803	2.2	19.8	5 11	14 48.85	-12 9.6	2.216	3.219	2.5	21.1
5 21	14 39.98	-15 4.9	1.814	2.795	6.4	20.0	5 21	14 41.11	-11 17.4	2.243	3.216	5.9	21.4
5 31	14 32.85	-14 39.2	1.857	2.786	10.2	20.2	5 31	14 34.51	-10 33.3	2.297	3.213	9.2	21.6
6 10	14 27.70	-14 22.2	1.923	2.778	13.6	20.4	6 10	14 29.54	-10 0.1	2.374	3.208	12.0	21.7
1982	Cline		5 6.0 291°24	0°3/ 6.2 18			34055	2000 OU ₄₁		5 6.0 156°10	3°6/ 2.9 18		
4 1	15 21												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
433733	2015 <i>AB</i> ₁₅₀		5 6.0 262°66	0°5/ 6.4 18			1412	LagruLa		5 6.0 135°79	1°2/ 5.4 18	R	
4 1	15 19.63	-19 4.3	1.783	2.620	14.5	20.6	4 1	15 23.16	-14 48.0	1.534	2.380	16.0	16.0
4 11	15 14.66	-18 57.8	1.689	2.605	11.1	20.3	4 11	15 17.28	-14 32.9	1.467	2.389	12.0	15.7
4 21	15 7.20	-18 41.3	1.616	2.589	7.1	20.0	4 21	15 8.73	-14 10.8	1.421	2.398	7.4	15.5
5 1	14 57.92	-18 15.8	1.570	2.573	2.6	19.7	5 1	14 58.41	-13 44.2	1.401	2.406	2.6	15.2
5 11	14 47.88	-17 44.1	1.550	2.557	2.3	19.6	5 11	14 47.58	-13 17.4	1.408	2.413	3.1	15.3
5 21	14 38.22	-17 10.5	1.557	2.540	6.9	19.9	5 21	14 37.52	-12 54.9	1.441	2.420	7.9	15.6
5 31	14 30.07	-16 40.1	1.590	2.523	11.3	20.1	5 31	14 29.34	-12 41.0	1.499	2.427	12.3	15.8
6 10	14 24.23	-16 17.8	1.644	2.506	15.2	20.3	6 10	14 23.77	-12 38.6	1.578	2.433	16.1	16.1
118811	2000 <i>SS</i> ₇₃		5 6.0 184°53	2°0/ 4.6 18			252996	2002 <i>QK</i> ₁₁₁		5 6.0 3°90	3°4/ 3.9 17		
4 1	15 18.13	-12 27.4	2.096	2.938	12.4	20.1	4 1	15 16.19	-12 3.1	1.368	2.237	16.3	20.5
4 11	15 12.91	-11 56.8	2.017	2.938	9.3	19.9	4 11	15 12.30	-11 7.4	1.302	2.236	12.2	20.3
4 21	15 5.77	-11 21.7	1.963	2.938	5.8	19.7	4 21	15 5.76	-10 4.5	1.257	2.236	7.7	20.0
5 1	14 57.34	-10 45.2	1.935	2.937	2.5	19.4	5 1	14 57.43	-9 0.3	1.235	2.237	3.8	19.8
5 11	14 48.51	-10 11.1	1.936	2.936	3.3	19.5	5 11	14 48.54	-8 2.3	1.238	2.237	5.1	19.8
5 21	14 40.16	-9 43.1	1.964	2.935	6.8	19.7	5 21	14 40.37	-7 17.2	1.266	2.239	9.6	20.1
5 31	14 33.08	-9 24.6	2.019	2.933	10.3	19.9	5 31	14 34.02	-6 50.0	1.317	2.240	14.0	20.3
6 10	14 27.87	-9 17.6	2.096	2.931	13.4	20.1	6 10	14 30.23	-6 42.8	1.386	2.242	17.8	20.6
174195	2002 <i>QW</i> ₃₀		5 6.0 329°15	2°6/ 4.7 17			160131	2000 <i>XS</i> ₄₅		5 6.0 108°13	13°4/ 18.1 18		
4 1	15 15.95	-12 45.4	1.283	2.155	16.9	19.9	4 1	15 35.41	-53 22.8	1.907	2.555	19.9	19.4
4 11	15 12.48	-12 16.9	1.207	2.143	12.8	19.6	4 11	15 27.76	-54 46.8	1.845	2.575	18.1	19.3
4 21	15 6.09	-11 41.2	1.151	2.132	8.0	19.3	4 21	15 15.87	-55 41.1	1.799	2.595	16.3	19.2
5 1	14 57.59	-11 2.9	1.117	2.121	3.4	19.0	5 1	15 0.96	-55 57.5	1.771	2.615	14.7	19.2
5 11	14 48.26	-10 27.8	1.108	2.111	4.5	19.0	5 11	14 45.08	-55 32.3	1.763	2.633	13.7	19.1
5 21	14 39.52	-10 2.2	1.123	2.102	9.5	19.3	5 21	14 30.51	-54 28.1	1.777	2.652	13.5	19.1
5 31	14 32.68	-9 51.0	1.159	2.094	14.5	19.5	5 31	14 19.08	-52 53.7	1.812	2.669	14.2	19.2
6 10	14 28.62	-9 56.9	1.214	2.086	18.8	19.8	6 10	14 11.75	-51 1.6	1.868	2.686	15.4	19.4
38814	2000 <i>RR</i> ₇₂		5 6.0 276°99	1°5/ 6.9 18	R		62754	2000 <i>US</i> ₇		5 6.0 268°50	0°5/ 6.3 18		
4 1	15 19.00	-21 12.1	1.874	2.704	14.2	19.2	4 1	15 21.42	-17 34.5	1.959	2.791	13.6	19.1
4 11	15 14.17	-21 14.0	1.773	2.684	11.0	19.0	4 11	15 15.90	-17 49.1	1.858	2.771	10.4	18.8
4 21	15 6.91	-21 5.2	1.695	2.664	7.2	18.7	4 21	15 7.96	-17 57.3	1.779	2.751	6.6	18.6
5 1	14 57.84	-20 45.7	1.643	2.644	3.1	18.4	5 1	14 58.23	-17 59.5	1.728	2.731	2.4	18.2
5 11	14 47.98	-20 17.7	1.617	2.623	2.4	18.3	5 11	14 47.67	-17 57.1	1.704	2.710	2.2	18.2
5 21	14 38.44	-19 44.9	1.619	2.603	6.6	18.5	5 21	14 37.38	-17 52.5	1.708	2.690	6.6	18.4
5 31	14 30.30	-19 12.3	1.646	2.582	10.9	18.7	5 31	14 28.44	-17 49.3	1.738	2.668	10.7	18.6
6 10	14 24.41	-18 45.2	1.695	2.561	14.6	18.9	6 10	14 21.66	-17 50.8	1.791	2.647	14.4	18.8
463326	2012 <i>KS</i> ₃₄		5 6.0 310°82	3°3/ 4.2 17			215762	2004 <i>FK</i> ₉₁		5 6.0 208°06	1°4/ 4.9 17		
4 1	15 16.96	-10 18.5	1.505	2.368	15.3	20.6	4 1	15 15.90	-13 52.9	2.239	3.080	11.8	20.7
4 11	15 12.90	-9 51.4	1.420	2.351	11.6	20.3	4 11	15 11.18	-13 28.8	2.159	3.079	8.8	20.5
4 21	15 6.22	-9 20.6	1.357	2.335	7.4	20.0	4 21	15 4.68	-12 59.7	2.102	3.078	5.4	20.3
5 1	14 57.62	-8 50.2	1.317	2.318	3.7	19.8	5 1	14 57.01	-12 28.1	2.073	3.077	2.0	20.1
5 11	14 48.22	-8 25.5	1.303	2.302	4.8	19.8	5 11	14 48.95	-11 57.4	2.072	3.075	2.7	20.1
5 21	14 39.27	-8 11.3	1.314	2.287	9.2	20.0	5 21	14 41.32	-11 31.0	2.099	3.074	6.2	20.3
5 31	14 31.94	-8 11.3	1.348	2.272	13.7	20.2	5 31	14 34.85	-11 12.0	2.153	3.072	9.5	20.5
6 10	14 27.08	-8 27.5	1.401	2.257	17.7	20.4	6 10	14 30.09	-11 2.7	2.229	3.071	12.4	20.7
389297	2009 <i>KH</i> ₃₀		5 6.0 336°81	14°9/ 23.7 17			398481	2011 <i>UZ</i> ₁₄₀		5 6.0 201°47	1°6/ 4.9 17		
4 1	15 17.03	+22 44.4	1.765	2.556	16.5	19.7	4 1	15 16.99	-11 54.2	2.386	3.225	11.2	20.9
4 11	15 12.50	+23 58.1	1.710	2.540	15.5	19.5	4 11	15 11.88	-11 46.8	2.305	3.224	8.4	20.7
4 21	15 5.69	+24 47.6	1.675	2.525	15.0	19.5	4 21	15 5.08	-11 36.8	2.249	3.223	5.2	20.5
5 1	14 57.36	+25 4.3	1.658	2.511	15.1	19.4	5 1	14 57.14	-11 26.2	2.220	3.223	2.1	20.3
5 11	14 48.57	+24 43.1	1.662	2.498	16.0	19.5	5 11	14 48.82	-11 17.5	2.220	3.222	2.7	20.4
5 21	14 40.39	+23 43.4	1.684	2.485	17.4	19.5	5 21	14 40.89	-11 13.0	2.248	3.221	5.9	20.6
5 31	14 33.76	+22 8.2	1.724	2.473	19.0	19.6	5 31	14 34.06	-11 14.9	2.303	3.220	9.1	20.8
6 10	14 29.34	+20 3.8	1.779	2.463	20.6	19.7	6 10	14 28.86	-11 24.6	2.381	3.219	11.9	20.9
346787	2009 <i>BV</i> ₁₄₁		5 6.0 264°46	1°5/ 4.9 17			459538	2013 <i>GL</i> ₆		5 6.0 39°66	3°3/ 4.2 16		
4 1	15 16.11	-13 47.1	2.113	2.957	12.3	21.1	4 1	15 18.89	-11 48.9	1.345	2.210	16.7	21.8
4 11	15 11.46	-13 22.5	2.030	2.952	9.2	20.9	4 11	15 14.38	-11 4.1	1.279	2.211	12.5	21.5
4 21	15 4.91	-12 52.5	1.970	2.946	5.7	20.7	4 21	15 7.08	-10 12.9	1.234	2.213	7.9	21.2
5 1	14 57.09	-12 20.0	1.937	2.941	2.2	20.4	5 1	14 57.89	-9 20.8	1.213	2.215	3.7	21.0
5 11	14 48.82	-11 48.4	1.932	2.935	2.8	20.5	5 11	14 48.11	-8 34.6	1.216	2.216	5.0	21.1
5 21	14 40.96	-11 21.3	1.955	2.930	6.5	20.7	5 21	14 39.09	-8 0.4	1.245	2.218	9.6	21.3
5 31	14 34.33	-11 2.3	2.003	2.924	10.1	20.9	5 31	14 32.01	-7 42.8	1.296	2.220	14.1	21.6
6 10	14 29.50	-10 53.7	2.074	2.919	13.2	21.1	6 10	14 27.61	-7 43.6	1.366	2.222	18.0	21.8
503936	2003 <i>SV</i> ₂₇₈		5 6.0 230°70	0°3/ 6.3 17			39881	1998 <i>EK</i> ₁₁		5 6.0 336°33	3°0/ 4.7 18	R	
4 1	15 16.60	-20 41.4	2.372	3.196	11.8	21.8	4 1	15 14.75	-11 49.7	1.128	2.010	18.0	17.6
4 11	15 11.70	-19 58.1	2.275	3.184	9.0	21.6	4 11	15 11.95	-11 30.2	1.054	1.995	13.7	17.3
4 21	15 5.01	-19 3.6	2.202	3.173	5.7	21.4	4 21	15 5.96	-11 4.9	0.998	1.981	8.6	17.0
5 1	14 57.11	-17 59.9	2.157	3.161	2.0	21.1	5 1	14 57.62	-10 38.6	0.964	1.968	3.8	16.6
5 11	14 48.79	-16 50.9	2.141	3.148	1.8	21.1	5 11	14 48.30	-10 17.3	0.953	1.956	4.9	16.7
5 21	14 40.85	-15 41.4	2.155	3.135	5.6	21.3	5 21	14 39.57	-10 6.8	0.964	1.946	10.3	16.9
5 31	14 34.04	-14 36.7	2.195	3.121	9.0	21.5	5 31	14 32.90	-10 11.7	0.996	1.937	15.6	17.2
6 10	14 28.95	-13 41.1	2.260	3.107	12.1	21.7	6 10	14 29.29	-10 34.2	1.045	1.929	20.2	17.4
33682	Waylonreid		5 6.0 128°57	0°0/ 5.8 18									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
382925	2004 <i>SJ</i> ₅₂		5 6.0 238°76	1°9/ 7.5 18			175875	1999 <i>VG</i> ₁₄₈		5 6.1 179°58	1°4/ 5.2 18		
4 1	15 18.94	-23 47.9	2.213	3.027	12.9	22.1	4 1	15 21.79	-13 31.3	1.851	2.691	13.9	20.5
4 11	15 13.73	-23 37.7	2.113	3.013	10.0	21.9	4 11	15 15.95	-13 20.4	1.773	2.692	10.5	20.3
4 21	15 6.43	-23 15.4	2.036	2.999	6.7	21.6	4 21	15 7.82	-13 4.6	1.718	2.693	6.5	20.0
5 1	14 57.66	-22 41.3	1.985	2.984	3.2	21.4	5 1	14 58.13	-12 46.2	1.690	2.693	2.4	19.8
5 11	14 48.31	-21 57.6	1.963	2.968	2.4	21.3	5 11	14 47.92	-12 28.5	1.689	2.693	3.0	19.8
5 21	14 39.32	-21 8.2	1.969	2.952	5.7	21.5	5 21	14 38.26	-12 14.9	1.717	2.693	7.1	20.0
5 31	14 31.59	-20 18.3	2.003	2.936	9.4	21.7	5 31	14 30.11	-12 8.6	1.770	2.691	11.1	20.3
6 10	14 25.80	-19 32.9	2.060	2.919	12.7	21.8	6 10	14 24.18	-12 12.2	1.845	2.690	14.5	20.5
373531	2001 <i>SF</i> ₃₀₅		5 6.0 192°15	6°0/ 9.7 17			247858	2003 <i>UA</i> ₃₈		5 6.1 241°73	3°9/ 3.5 17		
4 1	15 24.33	-32 26.5	2.037	2.815	15.1	21.7	4 1	15 21.43	-7 43.4	1.974	2.816	13.1	21.7
4 11	15 18.19	-33 15.4	1.949	2.814	12.4	21.5	4 11	15 15.70	-7 5.0	1.879	2.798	10.0	21.5
4 21	15 9.41	-33 48.7	1.883	2.812	9.5	21.3	4 21	15 7.73	-6 24.6	1.807	2.778	6.6	21.2
5 1	14 58.72	-34 2.7	1.842	2.811	7.0	21.2	5 1	14 58.14	-5 46.3	1.762	2.758	4.0	21.0
5 11	14 47.26	-33 56.7	1.827	2.808	6.0	21.1	5 11	14 47.87	-5 15.0	1.746	2.737	5.1	21.0
5 21	14 36.26	-33 32.8	1.839	2.806	7.6	21.2	5 21	14 37.94	-4 54.6	1.757	2.715	8.6	21.2
5 31	14 26.90	-32 56.1	1.877	2.803	10.4	21.4	5 31	14 29.32	-4 48.4	1.794	2.692	12.3	21.4
6 10	14 20.00	-32 13.7	1.938	2.799	13.3	21.5	6 10	14 22.76	-4 57.5	1.852	2.669	15.6	21.5
118948	2000 <i>WN</i> ₈₃		5 6.0 308°03	0°3/ 6.2 16			245497	2005 <i>QQ</i> ₁₀₂		5 6.1 264°78	3°2/ 3.1 16		
4 1	15 19.75	-16 19.8	2.168	2.999	12.5	19.4	4 1	15 13.89	-9 19.2	2.352	3.200	11.1	21.2
4 11	15 14.28	-16 44.6	2.078	2.992	9.5	19.2	4 11	15 9.63	-8 23.5	2.265	3.189	8.3	21.0
4 21	15 6.75	-17 5.1	2.012	2.984	6.0	19.0	4 21	15 3.72	-7 24.5	2.203	3.177	5.4	20.8
5 1	14 57.77	-17 21.5	1.974	2.977	2.1	18.7	5 1	14 56.71	-6 26.1	2.169	3.165	3.3	20.6
5 11	14 48.20	-17 34.9	1.963	2.970	1.9	18.7	5 11	14 49.31	-5 33.1	2.162	3.153	4.3	20.7
5 21	14 38.98	-17 46.9	1.982	2.963	5.9	18.9	5 21	14 42.26	-4 49.4	2.184	3.141	7.2	20.8
5 31	14 30.98	-17 59.8	2.027	2.956	9.5	19.1	5 31	14 36.24	-4 18.4	2.231	3.129	10.2	21.0
6 10	14 24.90	-18 15.9	2.095	2.950	12.7	19.3	6 10	14 31.78	-4 1.8	2.300	3.117	12.9	21.1
233344	2006 <i>DF</i> ₁₉		5 6.1 300°05	1°4/ 5.2 17			132140	2002 <i>CT</i> ₂₇₀		5 6.1 143°53	0°8/ 6.6 18		
4 1	15 17.33	-14 21.4	1.811	2.659	13.8	20.6	4 1	15 23.03	-19 56.4	1.761	2.591	15.0	21.2
4 11	15 12.69	-14 1.0	1.731	2.655	10.4	20.4	4 11	15 16.97	-19 49.0	1.690	2.601	11.4	21.0
4 21	15 5.83	-13 34.3	1.674	2.651	6.4	20.1	4 21	15 8.46	-19 30.9	1.640	2.611	7.2	20.8
5 1	14 57.45	-13 4.1	1.643	2.647	2.3	19.9	5 1	14 58.35	-19 3.2	1.617	2.620	2.7	20.5
5 11	14 48.55	-12 34.3	1.639	2.643	3.0	19.9	5 11	14 47.76	-18 29.1	1.621	2.628	2.2	20.5
5 21	14 40.14	-12 9.1	1.661	2.639	7.2	20.1	5 21	14 37.87	-17 53.2	1.653	2.636	6.7	20.8
5 31	14 33.18	-11 52.2	1.709	2.635	11.1	20.4	5 31	14 29.69	-17 20.6	1.711	2.643	10.8	21.1
6 10	14 28.34	-11 46.5	1.778	2.632	14.6	20.6	6 10	14 23.91	-16 55.9	1.791	2.649	14.3	21.3
43879	1995 <i>CN</i> ₆		5 6.1 259°59	0°5/ 5.7 18			489446	2006 <i>YN</i> ₅		5 6.1 169°01	2°5/ 3.8 18		
4 1	15 16.34	-17 2.6	2.127	2.965	12.5	19.7	4 1	15 16.24	-7 45.5	3.062	3.895	9.2	22.3
4 11	15 11.72	-16 37.2	2.036	2.954	9.4	19.5	4 11	15 10.92	-7 24.6	2.984	3.899	6.9	22.1
4 21	15 5.14	-16 3.8	1.969	2.943	5.8	19.3	4 21	15 4.31	-7 3.4	2.933	3.903	4.5	22.0
5 1	14 57.21	-15 24.3	1.928	2.932	2.0	19.0	5 1	14 56.87	-6 44.3	2.910	3.906	2.6	21.9
5 11	14 48.78	-14 42.5	1.915	2.920	2.2	19.0	5 11	14 49.19	-6 29.6	2.917	3.909	3.3	21.9
5 21	14 40.73	-14 2.4	1.930	2.909	6.2	19.2	5 21	14 41.84	-6 21.2	2.954	3.911	5.5	22.1
5 31	14 33.90	-13 28.2	1.971	2.897	9.9	19.4	5 31	14 35.34	-6 20.6	3.018	3.913	7.9	22.2
6 10	14 28.91	-13 3.4	2.035	2.885	13.1	19.6	6 10	14 30.12	-6 28.7	3.106	3.914	10.1	22.4
141837	2002 <i>OT</i> ₁₆		5 6.1 218°28	1°1/ 5.3 17			321077	2008 <i>SJ</i> ₈₄		5 6.1 275°77	6°0/ 9.5 18		
4 1	15 18.73	-16 35.1	1.847	2.688	13.9	20.8	4 1	15 22.81	-32 33.6	2.103	2.880	14.7	20.7
4 11	15 13.72	-15 52.1	1.762	2.682	10.5	20.5	4 11	15 17.28	-33 15.8	1.987	2.852	12.2	20.5
4 21	15 6.47	-14 59.1	1.700	2.676	6.5	20.3	4 21	15 9.04	-33 43.2	1.893	2.823	9.5	20.3
5 1	14 57.67	-13 59.4	1.664	2.668	2.2	20.0	5 1	14 58.70	-33 52.2	1.824	2.794	7.0	20.1
5 11	14 48.35	-12 58.1	1.656	2.661	2.9	20.0	5 11	14 47.27	-33 40.9	1.781	2.764	6.1	19.9
5 21	14 39.52	-12 0.9	1.676	2.653	7.2	20.3	5 21	14 35.98	-33 10.9	1.765	2.733	7.7	20.0
5 31	14 32.16	-11 13.1	1.721	2.644	11.3	20.5	5 31	14 26.09	-32 26.9	1.775	2.702	10.8	20.1
6 10	14 26.95	-10 38.9	1.788	2.635	14.8	20.7	6 10	14 18.57	-31 36.1	1.808	2.671	14.0	20.2
18006	1999 <i>JE</i> ₉₄		5 6.1 286°75	5°1/ 1.7 18			312155	2007 <i>UH</i> ₁₂		5 6.1 243°36	1°7/ 7.1 16		
4 1	15 13.96	-4 10.4	2.144	2.997	11.8	18.3	4 1	15 22.27	-22 18.4	1.813	2.637	14.9	22.4
4 11	15 9.78	-3 6.8	2.067	2.989	9.1	18.1	4 11	15 16.74	-22 14.1	1.714	2.620	11.6	22.2
4 21	15 3.84	-2 3.7	2.014	2.981	6.5	17.9	4 21	15 8.59	-21 56.9	1.636	2.603	7.6	21.9
5 1	14 56.75	-1 6.3	1.988	2.973	5.1	17.8	5 1	14 58.50	-21 26.9	1.584	2.584	3.4	21.6
5 11	14 49.26	-0 19.8	1.989	2.965	6.2	17.8	5 11	14 47.55	-20 46.3	1.559	2.565	2.6	21.5
5 21	14 42.18	+ 0 11.9	2.017	2.957	8.8	18.0	5 21	14 36.98	-19 59.8	1.562	2.545	6.9	21.7
5 31	14 36.22	+ 0 26.3	2.068	2.949	11.7	18.1	5 31	14 27.97	-19 13.2	1.591	2.525	11.3	21.9
6 10	14 31.95	+ 0 23.0	2.141	2.941	14.3	18.3	6 10	14 21.37	-18 32.9	1.642	2.503	15.2	22.1
152650	1997 <i>VR</i> ₅		5 6.1 151°01	0°8/ 6.7 17			417487	2006 <i>RV</i> ₇₅		5 6.1 148°78	0°9/ 6.7 17		
4 1	15 18.99	-21 18.5	2.080	2.904	13.2	20.3	4 1	15 21.55	-20 12.5	1.941	2.768	13.9	22.0
4 11	15 13.62	-20 53.0	2.003	2.912	10.0	20.1	4 11	15 15.69	-20 6.6	1.866	2.776	10.6	21.8
4 21	15 6.24	-20 16.1	1.949	2.918	6.4	19.9	4 21	15 7.61	-19 50.8	1.814	2.784	6.8	21.6
5 1	14 57.55	-19 29.7	1.922	2.925	2.5	19.6	5 1	14 58.06	-19 25.9	1.788	2.791	2.6	21.4
5 11	14 48.50	-18 37.3	1.924	2.930	2.0	19.6	5 11	14 48.07	-18 54.8	1.791	2.797	2.1	21.3
5 21	14 40.01	-17 43.6	1.953	2.936	5.8	19.9	5 21	14 38.68	-18 21.5	1.821	2.803	6.2	21.6
5 31	14 32.91	-16 53.8	2.010	2.940	9.5	20.1	5 31	14 30.81	-17 50.7	1.878	2.809	10.0	21.9
6 10	14 27.80	-16 12.2	2.089	2.945	12.7	20.3	6 10	14 25.11	-17 26.5	1.957	2.814	13.3	22.1
112845	2002 <i>QX</i> ₂₀		5 6.1 52°44	3°3/ 4.0 18			182874	2002 <i>CC</i> ₂₃₀		5 6.1 317°38	2°5/ 7.9 16		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
242937	2006 QT ₇₀		5 6.1 228°65	1°1/ 5.2 17			274601	2008 TV ₃₆		5 6.1 250°80	3°0/ 3.9 18		
4 1	15 15.93	-14 47.5	2.264	3.103	11.7	21.4	4 1	15 17.92	-9 33.8	2.144	2.988	12.1	21.2
4 11	15 11.23	-14 21.4	2.180	3.099	8.8	21.2	4 11	15 12.89	-8 57.9	2.051	2.972	9.2	20.9
4 21	15 4.75	-13 49.6	2.120	3.095	5.4	21.0	4 21	15 5.90	-8 18.9	1.982	2.955	5.9	20.7
5 1	14 57.08	-13 14.4	2.087	3.091	1.9	20.8	5 1	14 57.54	-7 40.5	1.940	2.938	3.2	20.5
5 11	14 49.01	-12 39.3	2.082	3.086	2.5	20.8	5 11	14 48.63	-7 6.8	1.926	2.921	4.2	20.5
5 21	14 41.34	-12 7.7	2.106	3.082	6.1	21.0	5 21	14 40.06	-6 41.6	1.940	2.903	7.5	20.7
5 31	14 34.81	-11 43.2	2.156	3.077	9.4	21.2	5 31	14 32.66	-6 28.1	1.979	2.885	11.0	20.9
6 10	14 29.99	-11 28.3	2.229	3.072	12.4	21.4	6 10	14 27.07	-6 27.9	2.041	2.866	14.1	21.0
395411	2011 SU ₁₅₉		5 6.1 246°44	2°0/ 4.1 18			65077	2002 AB ₂₀₂		5 6.1 332°41	2°3/ 4.5 18		
4 1	15 13.73	-14 35.3	2.253	3.097	11.6	20.7	4 1	15 16.09	-10 19.5	2.085	2.933	12.3	18.9
4 11	15 9.52	-13 22.7	2.174	3.097	8.6	20.5	4 11	15 11.50	-10 7.1	2.004	2.928	9.2	18.7
4 21	15 3.64	-12 2.2	2.120	3.096	5.3	20.3	4 21	15 5.01	-9 53.0	1.946	2.922	5.8	18.4
5 1	14 56.69	-10 38.3	2.093	3.095	2.3	20.1	5 1	14 57.22	-9 39.7	1.915	2.916	2.7	18.2
5 11	14 49.43	-9 16.4	2.095	3.095	3.3	20.2	5 11	14 48.98	-9 30.2	1.912	2.911	3.5	18.3
5 21	14 42.62	-8 2.1	2.126	3.094	6.6	20.4	5 21	14 41.14	-9 27.4	1.935	2.907	6.9	18.5
5 31	14 36.94	-6 59.9	2.183	3.093	9.9	20.6	5 31	14 34.50	-9 33.3	1.985	2.902	10.3	18.7
6 10	14 32.89	-6 12.7	2.263	3.092	12.7	20.8	6 10	14 29.68	-9 49.3	2.056	2.898	13.4	18.9
382248	2012 TY ₄		5 6.1 268°62	0°1/ 6.2 18			381527	2008 SC ₂₃₁		5 6.1 326°59	0°6/ 6.5 17		
4 1	15 9.09	-17 57.9	4.426	5.246	6.8	21.3	4 1	15 16.30	-20 26.7	1.734	2.575	14.7	21.1
4 11	15 5.39	-17 48.4	4.331	5.240	5.1	21.2	4 11	15 12.09	-20 1.8	1.653	2.571	11.2	20.8
4 21	15 0.83	-17 35.0	4.263	5.234	3.2	21.1	4 21	15 5.56	-19 24.5	1.594	2.567	7.1	20.6
5 1	14 55.70	-17 18.8	4.224	5.227	1.1	20.9	5 1	14 57.44	-18 36.6	1.560	2.564	2.6	20.3
5 11	14 50.39	-17 1.0	4.214	5.221	1.0	20.9	5 11	14 48.78	-17 42.5	1.553	2.560	2.2	20.2
5 21	14 45.25	-16 43.1	4.235	5.215	3.1	21.0	5 21	14 40.66	-16 47.7	1.573	2.557	6.7	20.5
5 31	14 40.63	-16 26.7	4.284	5.208	5.1	21.2	5 31	14 34.08	-15 58.2	1.617	2.554	10.9	20.8
6 10	14 36.84	-16 13.4	4.359	5.202	6.8	21.3	6 10	14 29.72	-15 19.1	1.683	2.551	14.6	21.0
171600	1999 XN ₁₂₂		5 6.1 249°55	2°2/ 8.6 18			370307	2002 RH ₅₂		5 6.1 75°82	9°6/ 11.2 17	A	
4 1	15 12.81	-27 10.5	3.565	4.355	8.9	20.2	4 1	15 49.19	-36 41.3	1.276	2.035	23.2	20.1
4 11	15 8.44	-27 6.7	3.461	4.343	7.0	20.0	4 11	15 37.37	-38 7.0	1.246	2.093	19.1	20.0
4 21	15 2.84	-26 54.0	3.382	4.331	4.9	19.8	4 21	15 21.25	-39 1.0	1.235	2.148	14.8	19.8
5 1	14 56.41	-26 32.7	3.330	4.319	2.9	19.7	5 1	15 2.63	-39 15.0	1.247	2.202	11.2	19.8
5 11	14 49.69	-26 3.8	3.307	4.306	2.3	19.6	5 11	14 44.07	-38 49.2	1.285	2.254	9.6	19.8
5 21	14 43.18	-25 29.6	3.314	4.294	3.9	19.7	5 21	14 27.86	-37 52.4	1.348	2.303	10.9	20.0
5 31	14 37.42	-24 52.6	3.349	4.281	6.1	19.9	5 31	14 15.54	-36 38.4	1.435	2.351	13.6	20.3
6 10	14 32.81	-24 15.9	3.410	4.268	8.2	20.0	6 10	14 7.66	-35 21.7	1.544	2.397	16.5	20.6
20891	2000 WN ₂₈		5 6.1 161°81	6°7/ 30.0 18			489580	2007 TZ ₉₄		5 6.1 164°43	4°8/ 7.1 18		
4 1	15 16.97	+ 2 15.7	2.291	3.129	11.7	18.4	4 1	15 36.62	-21 38.7	1.304	2.126	19.6	20.8
4 11	15 11.80	+ 3 30.4	2.231	3.135	9.4	18.2	4 11	15 28.72	-23 20.2	1.228	2.130	15.5	20.5
4 21	15 4.99	+ 4 39.6	2.195	3.140	7.4	18.1	4 21	15 16.69	-24 55.2	1.173	2.134	10.7	20.3
5 1	14 57.14	+ 5 37.4	2.186	3.145	6.7	18.1	5 1	15 1.46	-26 16.6	1.142	2.136	6.1	20.0
5 11	14 49.02	+ 6 19.0	2.204	3.149	7.7	18.2	5 11	14 44.77	-27 18.8	1.139	2.138	5.3	20.0
5 21	14 41.38	+ 6 41.6	2.248	3.153	9.8	18.3	5 21	14 28.76	-28 0.4	1.162	2.140	9.5	20.2
5 31	14 34.89	+ 6 44.3	2.316	3.156	12.1	18.4	5 31	14 15.39	-28 25.9	1.210	2.141	14.3	20.5
6 10	14 30.04	+ 6 28.0	2.404	3.158	14.2	18.6	6 10	14 5.90	-28 43.2	1.279	2.142	18.6	20.7
492208	2013 SA ₂₅		5 6.1 156°47	4°7/ 10.5 15			160202	2002 BG ₂₀		5 6.1 45°77	3°1/ 3.7 18		
4 1	15 22.61	-34 44.5	2.887	3.634	11.8	23.8	4 1	15 14.61	-9 12.7	2.075	2.927	12.2	19.4
4 11	15 16.04	-35 4.1	2.801	3.644	9.7	23.7	4 11	15 10.23	-8 32.9	2.012	2.937	9.1	19.3
4 21	15 7.65	-35 9.4	2.739	3.654	7.5	23.5	4 21	15 4.10	-7 51.3	1.973	2.947	5.8	19.1
5 1	14 58.07	-34 58.9	2.703	3.663	5.6	23.4	5 1	14 56.88	-7 11.8	1.960	2.958	3.3	18.9
5 11	14 48.11	-34 33.0	2.695	3.671	4.8	23.4	5 11	14 49.37	-6 38.8	1.975	2.969	4.2	19.0
5 21	14 38.60	-33 54.2	2.717	3.678	5.7	23.5	5 21	14 42.37	-6 15.4	2.017	2.980	7.3	19.2
5 31	14 30.32	-33 6.6	2.766	3.685	7.7	23.6	5 31	14 36.61	-6 4.2	2.084	2.991	10.4	19.4
6 10	14 23.82	-32 15.2	2.841	3.690	9.8	23.7	6 10	14 32.59	-6 6.2	2.173	3.003	13.1	19.6
137015	1998 SW ₁₃₀		5 6.1 284°31	0°5/ 6.6 18			427346	2014 WW ₃₆₄		5 6.1 231°38	4°7/ 29.2 18		
4 1	15 12.68	-20 5.2	3.335	4.152	8.9	20.4	4 1	15 11.00	+ 9 57.1	4.633	5.439	6.8	20.2
4 11	15 8.43	-19 49.1	3.220	4.125	6.7	20.2	4 11	15 6.69	+10 18.3	4.565	5.435	5.7	20.1
4 21	15 2.89	-19 26.1	3.130	4.098	4.3	20.0	4 21	15 1.58	+10 33.2	4.522	5.432	4.9	20.1
5 1	14 56.46	-18 57.5	3.068	4.070	1.7	19.8	5 1	14 55.98	+10 39.7	4.507	5.428	4.7	20.0
5 11	14 49.65	-18 24.9	3.036	4.042	1.3	19.7	5 11	14 50.24	+10 36.2	4.519	5.425	5.2	20.1
5 21	14 43.02	-17 50.8	3.033	4.014	4.1	19.9	5 21	14 44.69	+10 22.1	4.558	5.421	6.1	20.1
5 31	14 37.10	-17 17.9	3.059	3.986	6.7	20.0	5 31	14 39.68	+ 9 57.3	4.623	5.417	7.2	20.2
6 10	14 32.34	-16 48.9	3.110	3.957	9.1	20.2	6 10	14 35.46	+ 9 22.5	4.710	5.413	8.3	20.3
543	Charlotte		5 6.1 184°05	3°1/ 8.9 18			505314	2012 XO ₈₄		5 6.1 113°96	3°3/ 3.2 17		
4 1	15 17.13	-28 57.4	2.741	3.528	11.4	15.1	4 1	15 15.88	-6 6.3	2.630	3.470	10.3	22.5
4 11	15 11.98	-28 55.6	2.650	3.528	9.1	15.0	4 11	15 10.79	-5 34.0	2.567	3.484	7.7	22.3
4 21	15 5.15	-28 41.4	2.583	3.528	6.5	14.8	4 21	15 4.29	-5 2.5	2.529	3.497	5.2	22.2
5 1	14 57.23	-28 14.7	2.542	3.527	4.0	14.6	5 1	14 56.92	-4 34.9	2.519	3.511	3.4	22.1
5 11	14 48.94	-27 36.9	2.530	3.526	3.2	14.6	5 11	14 49.34	-4 14.1	2.538	3.524	4.2	22.1
5 21	14 41.03	-26 51.1	2.547	3.525	5.0	14.7	5 21	14 42.19	-4 2.5	2.585	3.537	6.5	22.3
5 31	14 34.21	-26 1.3	2.591	3.523	7.6	14.8	5 31	14 36.05	-4 1.4	2.659	3.549	9.0	22.5
6 10	14 29.00	-25 12.0	2.661	3.521	10.1	15.0	6 10	14 31.35	-4 11.3	2.755	3.562	11.3	22.7
497407	2005 WG ₃₄		5 6.1 172°75	3°1/ 8.8 17			470568	2008 GC ₉₆		5 6.1 76°03	0°1/ 6.0 17		
4 1	15 19.47	-28 50.8	2.213	3.008	13.5	22.0	4 1	15 19.13	-15 30.6				

EPHEMERIDES

5 6.1

5 6.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
199824	2007 <i>DO</i> ₉₇		5 6.1 69°53	2°9/ 4.5 18			187367	2005 <i>UB</i> ₂₇₈		5 6.1 80°42	0°1/ 6.2 18		
4 1	15 19.68	-13 35.8	1.220	2.087	17.9	20.4	4 1	15 14.63	-18 59.4	2.392	3.223	11.5	20.4
4 11	15 15.12	-12 43.4	1.163	2.097	13.4	20.1	4 11	15 10.19	-18 35.6	2.310	3.224	8.7	20.3
4 21	15 7.60	-11 42.1	1.127	2.107	8.3	19.9	4 21	15 4.10	-18 3.4	2.253	3.225	5.4	20.0
5 1	14 58.14	-10 38.0	1.114	2.117	3.5	19.6	5 1	14 56.91	-17 25.0	2.222	3.226	1.9	19.8
5 11	14 48.20	-9 39.1	1.126	2.128	4.8	19.7	5 11	14 49.38	-16 43.2	2.220	3.227	1.7	19.8
5 21	14 39.22	-8 52.5	1.162	2.138	9.7	20.0	5 21	14 42.27	-16 1.9	2.247	3.228	5.3	20.0
5 31	14 32.38	-8 23.6	1.219	2.148	14.4	20.3	5 31	14 36.25	-15 24.7	2.300	3.229	8.5	20.2
6 10	14 28.41	-8 14.7	1.296	2.159	18.4	20.6	6 10	14 31.85	-14 55.0	2.377	3.230	11.4	20.4
24854	1995 <i>YU</i>		5 6.1 237°93	2°4/ 4.5 18			397101	2005 <i>UO</i> ₄₉₂		5 6.1 278°52	1°8/ 4.8 16		
4 1	15 20.33	-11 36.1	1.973	2.815	13.1	19.4	4 1	15 19.20	-11 3.5	2.506	3.338	11.0	21.3
4 11	15 14.89	-11 6.9	1.880	2.801	9.9	19.2	4 11	15 13.75	-10 57.2	2.393	3.308	8.3	21.1
4 21	15 7.25	-10 33.1	1.811	2.786	6.3	18.9	4 21	15 6.44	-10 48.9	2.305	3.278	5.2	20.8
5 1	14 58.04	-9 58.0	1.769	2.770	2.8	18.6	5 1	14 57.78	-10 40.3	2.245	3.246	2.3	20.6
5 11	14 48.21	-9 25.7	1.754	2.754	3.7	18.7	5 11	14 48.48	-10 33.8	2.214	3.215	2.9	20.6
5 21	14 38.74	-9 0.3	1.768	2.737	7.6	18.9	5 21	14 39.33	-10 31.8	2.212	3.183	6.2	20.7
5 31	14 30.61	-8 45.2	1.807	2.720	11.4	19.1	5 31	14 31.12	-10 36.4	2.238	3.150	9.6	20.9
6 10	14 24.51	-8 43.0	1.868	2.702	14.8	19.2	6 10	14 24.51	-10 49.5	2.288	3.117	12.6	21.0
382816	2003 <i>UO</i> ₃₅₂		5 6.1 220°55	2°1/ 4.4 18			162574	2000 <i>RT</i> ₆₅		5 6.1 190°52	1°7/ 4.9 16		
4 1	15 16.98	-12 3.7	2.173	3.015	12.0	21.7	4 1	15 21.17	-13 50.6	2.008	2.844	13.1	21.3
4 11	15 12.09	-11 29.8	2.089	3.010	9.0	21.5	4 11	15 15.35	-13 15.5	1.925	2.843	9.9	21.0
4 21	15 5.34	-10 51.5	2.029	3.005	5.6	21.3	4 21	15 7.43	-12 33.9	1.867	2.841	6.1	20.8
5 1	14 57.34	-10 11.9	1.997	2.999	2.5	21.1	5 1	14 58.08	-11 49.2	1.836	2.839	2.4	20.6
5 11	14 48.92	-9 35.1	1.993	2.992	3.4	21.1	5 11	14 48.26	-11 5.4	1.833	2.835	3.2	20.6
5 21	14 40.90	-9 4.7	2.016	2.986	6.8	21.3	5 21	14 38.94	-10 27.1	1.859	2.831	7.0	20.8
5 31	14 34.08	-8 44.0	2.066	2.979	10.2	21.5	5 31	14 31.01	-9 58.3	1.910	2.826	10.8	21.0
6 10	14 29.03	-8 35.1	2.138	2.972	13.2	21.7	6 10	14 25.11	-9 41.7	1.985	2.819	14.0	21.2
302274	2001 <i>XQ</i> ₁₈₄		5 6.1 128°99	3°7/ 3.9 18			509310	2006 <i>WD</i> ₇		5 6.1 172°97	1°5/ 4.6 17		
4 1	15 22.02	-9 5.1	1.608	2.460	15.1	21.3	4 1	15 15.33	-12 39.9	2.799	3.634	9.9	23.0
4 11	15 16.24	-8 27.8	1.546	2.471	11.4	21.1	4 11	15 10.43	-12 10.5	2.719	3.636	7.4	22.8
4 21	15 8.03	-7 48.4	1.506	2.481	7.3	20.9	4 21	15 4.12	-11 37.6	2.664	3.638	4.6	22.6
5 1	14 58.26	-7 11.7	1.492	2.491	4.0	20.7	5 1	14 56.91	-11 3.5	2.638	3.640	1.9	22.4
5 11	14 48.08	-6 42.7	1.505	2.500	5.1	20.8	5 11	14 49.43	-10 31.0	2.641	3.641	2.5	22.5
5 21	14 38.66	-6 25.6	1.544	2.509	8.9	21.0	5 21	14 42.29	-10 3.1	2.673	3.642	5.3	22.7
5 31	14 30.97	-6 23.1	1.607	2.518	12.7	21.3	5 31	14 36.08	-9 42.1	2.732	3.643	8.1	22.9
6 10	14 25.68	-6 35.9	1.691	2.525	16.1	21.5	6 10	14 31.25	-9 29.7	2.816	3.643	10.5	23.0
481556	2007 <i>RH</i> ₂₃₉		5 6.1 196°06	0°5/ 6.7 17			330760	2008 <i>SQ</i> ₂₅₃		5 6.1 285°81	9°0/ 28.6 18		
4 1	15 12.07	-19 46.0	4.505	5.313	6.9	23.2	4 1	15 16.72	+ 4 37.9	1.860	2.705	13.6	20.5
4 11	15 7.58	-19 40.3	4.409	5.310	5.2	23.1	4 11	15 12.30	+ 6 3.3	1.775	2.679	11.4	20.3
4 21	15 2.19	-19 30.1	4.339	5.306	3.3	22.9	4 21	15 5.71	+ 7 22.6	1.713	2.653	9.5	20.1
5 1	14 56.21	-19 16.2	4.299	5.301	1.3	22.8	5 1	14 57.56	+ 8 27.9	1.676	2.627	9.1	20.0
5 11	14 50.03	-18 59.8	4.290	5.296	1.0	22.7	5 11	14 48.75	+ 9 11.7	1.663	2.600	10.4	20.0
5 21	14 44.03	-18 42.2	4.311	5.291	3.0	22.9	5 21	14 40.26	+ 9 29.5	1.675	2.574	12.9	20.1
5 31	14 38.58	-18 25.1	4.361	5.286	5.0	23.0	5 31	14 33.06	+ 9 19.5	1.708	2.547	15.7	20.2
6 10	14 34.00	-18 10.2	4.438	5.280	6.7	23.2	6 10	14 27.86	+ 8 43.4	1.759	2.520	18.4	20.4
346564	2008 <i>UY</i> ₃₆₈		5 6.1 307°20	6°4/ 2.9 17			54277	2000 <i>JD</i> ₄₆		5 6.1 198°90	2°5/ 4.8 18		
4 1	15 19.96	-1 3.8	1.662	2.514	14.7	20.3	4 1	15 22.91	-9 23.1	1.989	2.827	13.2	19.2
4 11	15 15.03	-0 42.1	1.571	2.490	11.6	20.1	4 11	15 16.70	-9 22.7	1.907	2.825	10.0	19.0
4 21	15 7.56	-0 26.4	1.502	2.466	8.5	19.8	4 21	15 8.31	-9 21.8	1.849	2.822	6.3	18.8
5 1	14 58.21	-0 22.2	1.458	2.443	6.5	19.7	5 1	14 58.41	-9 22.6	1.818	2.819	3.0	18.6
5 11	14 48.02	-0 34.1	1.440	2.420	7.5	19.7	5 11	14 47.96	-9 27.6	1.816	2.816	3.7	18.6
5 21	14 38.17	-1 5.0	1.447	2.397	10.8	19.8	5 21	14 37.99	-9 39.0	1.842	2.812	7.3	18.8
5 31	14 29.78	-1 55.4	1.477	2.374	14.5	19.9	5 31	14 29.41	-9 58.6	1.894	2.807	11.0	19.0
6 10	14 23.72	-3 3.6	1.527	2.352	18.0	20.1	6 10	14 22.91	-10 27.2	1.969	2.803	14.2	19.2
203451	2001 <i>YP</i> ₈₉		5 6.1 48°31	2°1/ 5.2 18			62791	2000 <i>UT</i> ₂₆		5 6.1 119°10	2°6/ 3.7 18		
4 1	15 21.19	-12 53.3	1.174	2.042	18.4	20.0	4 1	15 14.73	-9 37.5	2.521	3.364	10.6	19.6
4 11	15 16.28	-12 42.6	1.124	2.058	13.8	19.8	4 11	15 10.06	-8 56.9	2.452	3.372	7.9	19.4
4 21	15 8.32	-12 26.5	1.095	2.075	8.5	19.6	4 21	15 3.92	-8 14.3	2.408	3.381	5.0	19.3
5 1	14 58.38	-12 8.6	1.088	2.092	3.2	19.3	5 1	14 56.85	-7 32.9	2.391	3.389	2.8	19.1
5 11	14 48.01	-11 53.9	1.105	2.110	4.0	19.4	5 11	14 49.52	-6 56.5	2.403	3.397	3.6	19.2
5 21	14 38.69	-11 46.6	1.146	2.128	9.1	19.7	5 21	14 42.62	-6 27.9	2.444	3.405	6.3	19.4
5 31	14 31.65	-11 50.6	1.210	2.146	13.9	20.1	5 31	14 36.74	-6 9.6	2.511	3.413	9.1	19.6
6 10	14 27.58	-12 7.4	1.292	2.165	17.9	20.4	6 10	14 32.34	-6 2.7	2.601	3.420	11.5	19.8
87751	2000 <i>SA</i> ₇₄		5 6.1 242°49	2°8/ 4.0 18			143608	2003 <i>FD</i> ₁₁₂		5 6.1 90°17	0°7/ 5.5 17		
4 1	15 17.74	-10 42.3	2.015	2.862	12.7	20.5	4 1	15 14.66	-16 41.0	2.273	3.111	11.7	20.2
4 11	15 12.84	-10 3.2	1.928	2.851	9.6	20.2	4 11	15 10.28	-16 5.7	2.194	3.112	8.8	20.0
4 21	15 5.91	-9 19.9	1.865	2.840	6.1	20.0	4 21	15 4.18	-15 22.9	2.138	3.113	5.4	19.8
5 1	14 57.57	-8 36.3	1.828	2.828	3.1	19.8	5 1	14 56.96	-14 35.3	2.110	3.114	1.8	19.5
5 11	14 48.71	-7 56.9	1.819	2.816	4.1	19.8	5 11	14 49.40	-13 46.7	2.110	3.115	2.2	19.5
5 21	14 40.25	-7 26.0	1.838	2.804	7.6	20.0	5 21	14 42.28	-13 1.2	2.138	3.116	5.8	19.8
5 31	14 33.06	-7 6.9	1.882	2.792	11.2	20.2	5 31	14 36.29	-12 22.6	2.192	3.117	9.1	20.0
6 10	14 27.78	-7 1.6	1.948	2.779	14.4	20.4	6 10	14 31.98	-11 53.9	2.270	3.118	12.1	20.2
128469	2004 <i>OH</i> ₁₂		5 6.1 279°21	0°3/ 6.3 17			10464	Jessie		5 6.1 331°53	1°0/ 6.5 18		
4 1	15 15.55	-18 52.9	2.										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
379319	2009 <i>WA</i> ₂₈		5 6.1 147°57'	1.1°/ 5.4	17		55183	2001 <i>QK</i> ₂₈₄		5 6.1 242°20'	5.2°/ 1.6	18	
4 1	15 19.18	-14 35.6	1.868	2.712	13.7	21.1	4 1	15 15.52	-1 46.5	2.349	3.193	11.2	18.0
4 11	15 14.01	-14 21.8	1.793	2.714	10.3	20.9	4 11	15 10.86	-0 54.8	2.271	3.185	8.7	17.8
4 21	15 6.66	-14 2.2	1.741	2.716	6.4	20.7	4 21	15 4.54	-0 5.7	2.217	3.177	6.4	17.6
5 1	14 57.85	-13 39.1	1.714	2.718	2.2	20.4	5 1	14 57.13	+0 36.1	2.190	3.168	5.2	17.5
5 11	14 48.56	-13 15.9	1.715	2.720	2.7	20.4	5 11	14 49.35	+1 6.5	2.190	3.159	6.2	17.6
5 21	14 39.82	-12 56.3	1.744	2.722	6.8	20.7	5 21	14 41.93	+1 22.4	2.217	3.150	8.5	17.7
5 31	14 32.53	-12 43.8	1.798	2.724	10.7	20.9	5 31	14 35.56	+1 22.1	2.269	3.141	11.1	17.9
6 10	14 27.34	-12 41.0	1.874	2.725	14.1	21.1	6 10	14 30.76	+1 5.9	2.343	3.131	13.6	18.0
107975	2001 <i>FD</i> ₁₂₉		5 6.1 348°00'	4.0°/ 8.4	17		405053	2001 <i>SQ</i> ₂₂₅		5 6.1 258°31'	2°3'/ 4.7	16	
4 1	15 10.42	-26 34.0	1.077	1.941	20.0	18.2	4 1	15 19.79	-14 27.7	1.556	2.409	15.5	22.2
4 11	15 9.04	-26 32.2	1.003	1.928	15.9	17.9	4 11	15 15.11	-13 38.7	1.465	2.392	11.7	21.9
4 21	15 4.36	-26 5.8	0.947	1.918	11.1	17.6	4 21	15 7.72	-12 39.2	1.396	2.374	7.4	21.6
5 1	14 57.22	-25 14.1	0.911	1.909	6.1	17.3	5 1	14 58.34	-11 33.3	1.352	2.355	3.0	21.3
5 11	14 49.14	-24 1.6	0.896	1.902	4.3	17.1	5 11	14 48.14	-10 27.6	1.334	2.337	4.1	21.3
5 21	14 41.79	-22 37.1	0.904	1.896	8.7	17.4	5 21	14 38.38	-9 28.9	1.343	2.317	8.9	21.6
5 31	14 36.67	-21 12.4	0.932	1.892	14.0	17.6	5 31	14 30.28	-8 44.0	1.375	2.298	13.6	21.8
6 10	14 34.76	-19 58.7	0.978	1.890	18.8	17.9	6 10	14 24.70	-8 17.0	1.427	2.278	17.7	22.0
342898	2008 <i>YZ</i> ₁₁₀		5 6.1 285°25'	0.9°/ 5.5	17		386226	2007 <i>YN</i> ₃₄		5 6.1 77°57'	0.2°/ 6.3	17	
4 1	15 17.70	-15 3.6	1.913	2.757	13.4	20.8	4 1	15 16.81	-18 42.7	2.144	2.977	12.5	21.6
4 11	15 12.99	-14 51.9	1.826	2.747	10.1	20.6	4 11	15 11.93	-18 25.4	2.076	2.990	9.4	21.4
4 21	15 6.10	-14 34.1	1.762	2.738	6.3	20.3	4 21	15 5.22	-17 59.9	2.031	3.003	5.9	21.2
5 1	14 57.70	-14 12.1	1.724	2.729	2.2	20.0	5 1	14 57.35	-17 27.9	2.013	3.017	2.1	21.0
5 11	14 48.71	-13 49.4	1.714	2.719	2.6	20.0	5 11	14 49.18	-16 52.8	2.023	3.030	1.9	21.0
5 21	14 40.14	-13 29.4	1.730	2.710	6.8	20.3	5 21	14 41.55	-16 18.2	2.061	3.043	5.6	21.2
5 31	14 32.92	-13 15.9	1.773	2.700	10.7	20.5	5 31	14 35.21	-15 48.0	2.126	3.057	9.1	21.5
6 10	14 27.74	-13 11.7	1.837	2.691	14.2	20.7	6 10	14 30.69	-15 25.4	2.214	3.070	12.0	21.7
125406	2001 <i>VU</i> ₁₀₅		5 6.1 245°58'	1°3'/ 6.9	16		35115	1992 <i>DN</i> ₈		5 6.1 77°16'	3°4'/ 3.2	18	
4 1	15 21.76	-21 44.1	1.697	2.527	15.4	21.2	4 1	15 14.30	-8 49.9	2.213	3.063	11.6	19.0
4 11	15 16.53	-21 30.9	1.601	2.512	12.0	20.9	4 11	15 9.98	-7 55.0	2.143	3.067	8.7	18.8
4 21	15 8.58	-21 3.9	1.526	2.495	7.8	20.7	4 21	15 3.99	-6 57.7	2.097	3.071	5.7	18.6
5 1	14 58.62	-20 23.7	1.476	2.478	3.2	20.3	5 1	14 56.94	-6 2.6	2.079	3.074	3.5	18.5
5 11	14 47.81	-19 33.3	1.453	2.460	2.5	20.2	5 11	14 49.58	-5 14.1	2.088	3.078	4.5	18.5
5 21	14 37.41	-18 38.2	1.457	2.442	7.2	20.5	5 21	14 42.68	-4 36.3	2.125	3.082	7.3	18.7
5 31	14 28.66	-17 45.1	1.487	2.422	11.8	20.7	5 31	14 36.91	-4 11.9	2.186	3.086	10.3	18.9
6 10	14 22.43	-17 0.5	1.538	2.403	15.9	20.9	6 10	14 32.77	-4 2.0	2.270	3.090	13.0	19.1
178588	1999 <i>XC</i> ₂₂₅		5 6.1 283°99'	2°5'/ 7.6	17		110720	2001 <i>TK</i> ₂₃₁		5 6.1 148°84'	2°0'/ 4.8	18	
4 1	15 19.20	-24 10.1	1.603	2.435	16.1	20.6	4 1	15 20.86	-11 32.2	2.151	2.988	12.4	20.4
4 11	15 14.59	-24 7.6	1.523	2.432	12.6	20.4	4 11	15 14.92	-11 13.3	2.080	2.997	9.3	20.2
4 21	15 7.31	-23 49.7	1.463	2.429	8.4	20.1	4 21	15 7.07	-10 51.4	2.032	3.006	5.8	20.0
5 1	14 58.15	-23 16.5	1.428	2.426	4.2	19.9	5 1	14 58.00	-10 29.1	2.012	3.014	2.5	19.8
5 11	14 48.32	-22 31.0	1.418	2.423	3.0	19.8	5 11	14 48.57	-10 9.5	2.021	3.021	3.2	19.8
5 21	14 39.09	-21 38.4	1.435	2.421	7.0	20.0	5 21	14 39.68	-9 55.7	2.058	3.028	6.6	20.1
5 31	14 31.63	-20 45.8	1.476	2.418	11.4	20.3	5 31	14 32.10	-9 50.1	2.122	3.035	10.0	20.3
6 10	14 26.73	-19 59.8	1.538	2.415	15.3	20.5	6 10	14 26.40	-9 54.5	2.209	3.040	12.9	20.5
183982	2004 <i>EH</i> ₄₃		5 6.1 72°37'	3°2'/ 4.3	18		62688	2000 <i>TQ</i> ₂₁		5 6.1 273°48'	4°2'/ 3.0	18	
4 1	15 19.49	-10 9.2	1.573	2.430	15.1	20.2	4 1	15 16.51	-4 26.9	2.263	3.109	11.5	18.9
4 11	15 14.49	-9 40.5	1.508	2.435	11.4	20.0	4 11	15 11.67	-3 58.4	2.184	3.102	8.8	18.8
4 21	15 7.06	-9 9.0	1.465	2.441	7.2	19.8	4 21	15 5.09	-3 31.6	2.128	3.096	6.1	18.6
5 1	14 58.02	-8 38.9	1.446	2.447	3.6	19.6	5 1	14 57.34	-3 10.4	2.100	3.089	4.3	18.4
5 11	14 48.50	-8 15.0	1.454	2.453	4.6	19.7	5 11	14 49.19	-2 58.2	2.099	3.083	5.2	18.5
5 21	14 39.66	-8 1.4	1.488	2.459	8.6	19.9	5 21	14 41.41	-2 57.5	2.125	3.076	7.8	18.6
5 31	14 32.52	-8 0.9	1.545	2.465	12.6	20.2	5 31	14 34.75	-3 9.8	2.177	3.070	10.7	18.8
6 10	14 27.75	-8 14.8	1.624	2.470	16.1	20.4	6 10	14 29.75	-3 35.1	2.251	3.063	13.3	19.0
65907	1998 <i>EX</i> ₁₁		5 6.1 330°81'	7°0'/ 2.2	18		433488	2013 <i>WN</i> ₁₂		5 6.1 141°93'	3°5'/ 3.8	17	
4 1	15 15.22	-4 50.0	1.222	2.101	17.1	18.3	4 1	15 20.27	-6 15.0	2.213	3.052	12.0	21.3
4 11	15 12.00	-3 44.7	1.152	2.088	13.2	18.0	4 11	15 14.40	-5 57.3	2.144	3.060	9.1	21.1
4 21	15 5.89	-2 39.3	1.103	2.077	9.4	17.7	4 21	15 6.72	-5 40.9	2.099	3.068	6.0	20.9
5 1	14 57.71	-1 42.3	1.075	2.066	7.1	17.6	5 1	14 57.88	-5 28.7	2.081	3.075	3.7	20.8
5 11	14 48.75	-1 2.7	1.071	2.056	8.6	17.6	5 11	14 48.71	-5 23.7	2.092	3.082	4.5	20.8
5 21	14 40.41	-0 46.7	1.088	2.046	12.6	17.8	5 21	14 40.04	-5 28.0	2.131	3.089	7.3	21.0
5 31	14 33.97	-0 57.2	1.126	2.038	16.8	18.0	5 31	14 32.61	-5 43.0	2.196	3.095	10.3	21.2
6 10	14 30.28	-1 33.3	1.181	2.030	20.7	18.2	6 10	14 26.99	-6 8.9	2.284	3.101	13.0	21.4
312158	2007 <i>UR</i> ₃₁		5 6.1 141°69'	0°4'/ 5.8	16		160219	2002 <i>EM</i> ₁₁₂		5 6.1 82°94'	0°0'/ 6.0	17	
4 1	15 22.34	-16 49.3	1.783	2.620	14.5	22.0	4 1	15 16.26	-17 33.5	2.363	3.194	11.6	21.0
4 11	15 16.43	-16 33.7	1.713	2.630	10.9	21.8	4 11	15 11.36	-17 17.7	2.294	3.209	8.7	20.8
4 21	15 8.18	-16 9.9	1.665	2.639	6.8	21.5	4 21	15 4.80	-16 55.2	2.250	3.223	5.4	20.6
5 1	14 58.39	-15 40.0	1.644	2.648	2.3	21.3	5 1	14 57.21	-16 27.9	2.233	3.237	1.8	20.4
5 11	14 48.16	-15 7.7	1.650	2.656	2.4	21.3	5 11	14 49.35	-15 58.4	2.245	3.251	1.8	20.4
5 21	14 38.60	-14 37.2	1.684	2.664	6.9	21.6	5 21	14 41.98	-15 30.1	2.285	3.266	5.3	20.7
5 31	14 30.68	-14 13.1	1.743	2.671	10.9	21.8	5 31	14 35.76	-15 6.1	2.352	3.280	8.5	20.9
6 10	14 25.05	-13 58.5	1.825	2.677	14.3	22.1	6 10	14 31.19	-14 49.0	2.443	3.293	11.2	21.1
438037	2004 <i>HC</i> ₂₉		5 6.1 333°94'	0°8'/ 5.5	17		150906	2001 <i>TF</i>		5 6.1 187°15'	9°1'/ 28.1	17	
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
51089	2000 <i>GO</i> ₁₇₈		5 6.1 126°69	0°5/ 5.7 18			315235	2007 <i>RH</i> ₂₆₁		5 6.1 144°84	8°0/28.9 18		
4 1	15 16.60	-17 1.6	2.069	2.908	12.7	19.6	4 1	15 19.43	+ 2 0.7	1.949	2.791	13.3	20.9
4 11	15 11.91	-16 36.0	1.992	2.910	9.6	19.4	4 11	15 13.88	+ 3 55.8	1.898	2.803	10.7	20.8
4 21	15 5.30	-16 2.5	1.937	2.912	5.9	19.2	4 21	15 6.43	+ 5 45.1	1.871	2.815	8.6	20.7
5 1	14 57.42	-15 23.5	1.910	2.914	2.0	19.0	5 1	14 57.79	+ 7 20.2	1.872	2.826	8.1	20.7
5 11	14 49.14	-14 42.7	1.910	2.916	2.2	19.0	5 11	14 48.90	+ 8 34.2	1.899	2.836	9.3	20.8
5 21	14 41.34	-14 4.2	1.938	2.918	6.1	19.2	5 21	14 40.63	+ 9 22.8	1.952	2.845	11.6	20.9
5 31	14 34.84	-13 32.1	1.992	2.920	9.7	19.5	5 31	14 33.76	+ 9 45.1	2.027	2.854	14.0	21.1
6 10	14 30.20	-13 9.5	2.069	2.922	12.9	19.7	6 10	14 28.83	+ 9 42.8	2.121	2.861	16.2	21.3
131637	2001 <i>XU</i> ₇₂		5 6.1 202°78	2°9/ 4.1 17			296393	2009 <i>FQ</i> ₇₀		5 6.1 296°95	2°2/ 4.1 18		
4 1	15 20.31	-12 22.6	1.713	2.562	14.5	20.3	4 1	15 13.77	-13 21.0	2.182	3.030	11.8	20.3
4 11	15 15.06	-11 27.5	1.635	2.559	10.9	20.1	4 11	15 9.71	-12 21.2	2.100	3.024	8.8	20.1
4 21	15 7.43	-10 25.3	1.579	2.555	6.8	19.8	4 21	15 3.91	-11 14.7	2.042	3.019	5.5	19.9
5 1	14 58.19	-9 20.8	1.549	2.550	3.3	19.6	5 1	14 56.97	-10 5.6	2.012	3.014	2.5	19.7
5 11	14 48.40	-8 20.2	1.546	2.545	4.4	19.7	5 11	14 49.65	-8 59.1	2.010	3.008	3.5	19.7
5 21	14 39.18	-7 29.4	1.570	2.539	8.5	19.9	5 21	14 42.74	-8 0.1	2.035	3.003	6.8	19.9
5 31	14 31.53	-6 53.2	1.619	2.532	12.5	20.1	5 31	14 36.97	-7 12.8	2.086	2.998	10.2	20.1
6 10	14 26.15	-6 34.3	1.689	2.525	16.0	20.3	6 10	14 32.88	-6 39.8	2.160	2.993	13.1	20.3
40610	1999 <i>RF</i> ₁₆₀		5 6.1 235°56	0°4/ 5.8 18			301026	2008 <i>SH</i> ₁₀₄		5 6.1 157°13	0°3/ 5.9 16		
4 1	15 19.10	-16 25.6	2.337	3.165	11.8	19.7	4 1	15 21.39	-18 13.5	1.504	2.350	16.3	21.4
4 11	15 13.73	-16 11.6	2.238	3.152	8.9	19.4	4 11	15 16.19	-17 45.2	1.432	2.354	12.3	21.2
4 21	15 6.46	-15 51.2	2.165	3.137	5.6	19.2	4 21	15 8.27	-17 5.1	1.382	2.357	7.7	20.9
5 1	14 57.85	-15 25.8	2.118	3.122	1.9	18.9	5 1	14 58.52	-16 15.9	1.356	2.360	2.6	20.6
5 11	14 48.71	-14 58.1	2.101	3.107	2.1	18.9	5 11	14 48.19	-15 22.7	1.356	2.363	2.7	20.6
5 21	14 39.87	-14 31.3	2.112	3.091	5.8	19.1	5 21	14 38.59	-14 31.9	1.383	2.365	7.7	20.9
5 31	14 32.16	-14 9.0	2.151	3.074	9.4	19.3	5 31	14 30.86	-13 49.6	1.434	2.367	12.3	21.2
6 10	14 26.20	-13 54.1	2.213	3.057	12.5	19.5	6 10	14 25.75	-13 20.6	1.506	2.369	16.3	21.4
414161	2007 <i>YO</i> ₄₅		5 6.1 105°95	1°0/ 5.5 18			382947	2004 <i>TQ</i> ₃₄₃		5 6.1 269°06	0°6/ 5.7 18		
4 1	15 20.72	-16 3.5	1.675	2.519	15.0	21.5	4 1	15 19.54	-16 36.5	2.163	2.995	12.5	21.8
4 11	15 15.26	-15 34.2	1.612	2.533	11.2	21.2	4 11	15 14.37	-16 12.5	2.051	2.966	9.5	21.5
4 21	15 7.45	-14 56.6	1.571	2.547	6.9	21.0	4 21	15 7.04	-15 40.3	1.963	2.936	6.0	21.3
5 1	14 58.16	-14 13.8	1.557	2.561	2.4	20.8	5 1	14 58.13	-15 1.6	1.901	2.905	2.1	21.0
5 11	14 48.49	-13 30.6	1.569	2.574	2.8	20.8	5 11	14 48.47	-14 19.7	1.868	2.874	2.4	20.9
5 21	14 39.58	-12 52.0	1.608	2.587	7.2	21.1	5 21	14 39.02	-13 38.6	1.864	2.841	6.5	21.1
5 31	14 32.36	-12 22.5	1.673	2.600	11.3	21.4	5 31	14 30.71	-13 3.0	1.886	2.809	10.5	21.3
6 10	14 27.45	-12 5.3	1.759	2.612	14.7	21.6	6 10	14 24.30	-12 36.8	1.931	2.775	14.0	21.4
210458	1993 <i>FV</i> ₄₂		5 6.1 0°64	3°6/ 3.1 18			158831	2004 <i>CR</i> ₃		5 6.1 156°95	2°2/ 4.7 17		
4 1	15 13.29	-10 5.4	1.912	2.769	12.8	19.7	4 1	15 20.50	-12 30.5	1.932	2.774	13.4	20.8
4 11	15 9.51	-8 58.6	1.840	2.768	9.6	19.5	4 11	15 14.87	-11 56.6	1.860	2.780	10.0	20.6
4 21	15 3.84	-7 47.4	1.792	2.768	6.2	19.3	4 21	15 7.16	-11 17.7	1.811	2.786	6.2	20.4
5 1	14 56.93	-6 37.1	1.771	2.768	3.7	19.1	5 1	14 58.09	-10 37.4	1.790	2.792	2.7	20.2
5 11	14 49.64	-5 33.8	1.776	2.768	4.9	19.2	5 11	14 48.62	-9 59.9	1.796	2.797	3.5	20.2
5 21	14 42.85	-4 42.6	1.808	2.769	8.1	19.4	5 21	14 39.72	-9 29.4	1.830	2.801	7.2	20.5
5 31	14 37.33	-4 7.3	1.864	2.770	11.5	19.6	5 31	14 32.26	-9 9.4	1.890	2.805	10.9	20.7
6 10	14 33.65	-3 49.5	1.942	2.771	14.5	19.8	6 10	14 26.86	-9 1.9	1.972	2.808	14.1	20.9
385583	2004 <i>XC</i> ₃₀		5 6.1 157°11	3°4/ 3.2 17			55915	1998 <i>FB</i> ₁₇		5 6.1 355°93	7°6/ 30.4 17		
4 1	15 18.09	-6 15.4	2.660	3.495	10.3	21.9	4 1	15 14.35	-2 0.5	1.549	2.416	14.8	18.2
4 11	15 12.49	-5 37.7	2.589	3.503	7.8	21.7	4 11	15 10.67	-0 27.0	1.488	2.414	11.6	18.0
4 21	15 5.42	-5 0.3	2.544	3.512	5.2	21.6	4 21	15 4.72	+ 1 4.1	1.449	2.412	8.8	17.8
5 1	14 57.43	-4 26.5	2.528	3.519	3.5	21.5	5 1	14 57.28	+ 2 24.1	1.434	2.411	7.6	17.7
5 11	14 49.18	-3 59.4	2.541	3.526	4.2	21.5	5 11	14 49.39	+ 3 24.8	1.444	2.411	9.0	17.8
5 21	14 41.36	-3 41.6	2.583	3.532	6.6	21.7	5 21	14 42.10	+ 4 1.0	1.478	2.410	12.0	18.0
5 31	14 34.55	-3 34.8	2.651	3.538	9.2	21.9	5 31	14 36.35	+ 4 10.6	1.533	2.411	15.2	18.2
6 10	14 30.22	-3 39.5	2.743	3.543	11.5	22.0	6 10	14 32.79	+ 3 54.7	1.607	2.412	18.1	18.4
18909	2000 <i>OE</i> ₂₁		5 6.1 161°43	1°5/ 4.6 18			128018	2003 <i>JA</i> ₁₄		5 6.1 325°35	8°0/ 30.8 18		
4 1	15 14.86	-13 1.4	2.854	3.688	9.7	19.3	4 1	15 17.45	+ 6 14.3	2.059	2.895	12.9	18.9
4 11	15 10.07	-12 24.4	2.776	3.693	7.2	19.2	4 11	15 12.53	+ 6 50.7	1.987	2.885	10.7	18.8
4 21	15 3.93	-11 43.4	2.724	3.698	4.5	19.0	4 21	15 5.70	+ 7 16.9	1.937	2.875	8.8	18.6
5 1	14 56.93	-11 1.2	2.700	3.702	1.9	18.8	5 1	14 57.60	+ 7 27.4	1.913	2.866	8.0	18.6
5 11	14 49.68	-10 20.6	2.706	3.706	2.5	18.9	5 11	14 49.07	+ 7 18.3	1.914	2.857	8.9	18.6
5 21	14 42.79	-9 44.7	2.741	3.710	5.3	19.1	5 21	14 40.98	+ 6 48.0	1.940	2.849	10.9	18.7
5 31	14 36.81	-9 16.2	2.803	3.713	8.0	19.2	5 31	14 34.12	+ 5 57.1	1.990	2.841	13.3	18.8
6 10	14 32.16	-8 56.8	2.890	3.716	10.3	19.4	6 10	14 29.10	+ 4 48.1	2.060	2.833	15.6	19.0
457797	2009 <i>QR</i> ₃₆		5 6.1 272°37	1°2/ 5.2 18			288327	2004 <i>BG</i> ₆₂		5 6.1 172°29	0°7/ 5.6 17		
4 1	15 17.81	-17 53.1	1.819	2.661	14.1	20.7	4 1	15 21.17	-16 10.5	2.010	2.843	13.3	22.2
4 11	15 13.34	-16 50.4	1.716	2.636	10.7	20.5	4 11	15 15.39	-15 49.1	1.931	2.847	10.0	21.9
4 21	15 6.50	-15 33.4	1.635	2.611	6.7	20.2	4 21	15 7.51	-15 20.4	1.876	2.850	6.2	21.7
5 1	14 57.94	-14 5.6	1.581	2.585	2.3	19.8	5 1	14 58.22	-14 46.6	1.848	2.852	2.1	21.5
5 11	14 48.64	-12 33.2	1.555	2.559	3.1	19.8	5 11	14 48.49	-14 11.1	1.848	2.854	2.4	21.5
5 21	14 39.69	-11 3.6	1.556	2.532	7.7	20.0	5 21	14 39.28	-13 38.2	1.877	2.854	6.5	21.7
5 31	14 32.14	-9 44.7	1.583	2.505	12.1	20.2	5 31	14 31.49	-13 11.6	1.932	2.855	10.2	22.0
6 10	14 26.76	-8 42.0	1.631	2.478	16.0	20.4	6 10	14 25.74	-12 54.7	2.009	2.854	13.5	22.2
505629	2014 <i>HW</i> ₁₄₅		5 6.1 66°88	0°9/ 6.7 17			3592	Nedbal		5 6.1 128°11	2°7/ 7.6 18		
4 1	15												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
128347	2004 <i>GB</i> ₂₃		5 6.1 299°51	1.6°/ 5.4	16		501611	2014 <i>QW</i> ₄₃₈		5 6.1 89°72	3.8°/ 3.9	17	
4 1	15 18.71	-14 57.0	1.226	2.093	17.8	19.9	4 1	15 19.66	-8 59.2	1.576	2.433	15.1	21.3
4 11	15 15.05	-14 37.2	1.140	2.073	13.6	19.6	4 11	15 14.62	-8 20.9	1.512	2.439	11.4	21.0
4 21	15 8.10	-14 7.4	1.073	2.053	8.6	19.2	4 21	15 7.18	-7 40.6	1.471	2.446	7.3	20.8
5 1	14 58.63	-13 30.8	1.028	2.033	3.1	18.8	5 1	14 58.16	-7 3.1	1.455	2.453	4.1	20.6
5 11	14 47.99	-12 52.9	1.008	2.013	3.8	18.8	5 11	14 48.69	-6 33.7	1.465	2.460	5.2	20.7
5 21	14 37.79	-12 20.3	1.011	1.994	9.7	19.1	5 21	14 39.92	-6 16.7	1.500	2.467	9.0	20.9
5 31	14 29.57	-11 59.5	1.035	1.975	15.3	19.3	5 31	14 32.84	-6 14.8	1.560	2.474	12.8	21.2
6 10	14 24.45	-11 55.3	1.077	1.956	20.2	19.5	6 10	14 28.10	-6 28.8	1.640	2.480	16.2	21.4
158074	2000 <i>UB</i> ₄₉		5 6.1 198°79	0.9°/ 5.5	18		162875	2001 <i>FD</i> ₂₀		5 6.1 47°96	0.7°/ 5.6	17	
4 1	15 21.56	-13 44.7	2.270	3.100	12.0	20.6	4 1	15 15.76	-18 11.9	1.769	2.615	14.2	19.3
4 11	15 15.55	-13 46.2	2.183	3.097	9.1	20.4	4 11	15 11.54	-17 23.9	1.700	2.622	10.7	19.1
4 21	15 7.58	-13 43.9	2.121	3.094	5.6	20.1	4 21	15 5.18	-16 24.9	1.653	2.630	6.6	18.9
5 1	14 58.27	-13 39.4	2.086	3.089	2.0	19.9	5 1	14 57.45	-15 18.6	1.633	2.637	2.2	18.6
5 11	14 48.47	-13 34.6	2.080	3.085	2.3	19.9	5 11	14 49.36	-14 10.6	1.639	2.645	2.5	18.7
5 21	14 39.05	-13 32.0	2.104	3.080	6.0	20.1	5 21	14 41.89	-13 7.0	1.673	2.653	6.8	18.9
5 31	14 30.85	-13 33.9	2.154	3.074	9.5	20.3	5 31	14 35.91	-12 13.2	1.731	2.662	10.8	19.2
6 10	14 24.49	-13 42.4	2.229	3.068	12.5	20.5	6 10	14 32.01	-11 33.2	1.812	2.670	14.2	19.4
276526	2003 <i>RY</i> ₂₅		5 6.1 308°64	9°3/10.9	16		156315	2001 <i>XY</i> ₆₇		5 6.1 26°37	9°1/ 1.5	18	
4 1	15 20.15	-37 41.8	1.700	2.474	17.7	20.1	4 1	15 18.93	+ 4 11.2	1.485	2.340	16.0	18.6
4 11	15 16.14	-38 44.4	1.593	2.446	15.4	19.9	4 11	15 14.10	+ 4 58.6	1.434	2.346	13.0	18.4
4 21	15 8.87	-39 27.3	1.505	2.417	12.7	19.7	4 21	15 6.84	+ 5 34.1	1.403	2.353	10.3	18.3
5 1	14 58.96	-39 44.2	1.438	2.388	10.4	19.4	5 1	14 58.03	+ 5 50.6	1.395	2.361	9.1	18.2
5 11	14 47.66	-39 31.4	1.394	2.360	9.3	19.3	5 11	14 48.83	+ 5 43.1	1.411	2.369	10.1	18.3
5 21	14 36.55	-38 49.5	1.374	2.332	10.5	19.3	5 21	14 40.40	+ 5 10.3	1.451	2.377	12.6	18.4
5 31	14 27.26	-37 44.4	1.377	2.305	13.2	19.4	5 31	14 33.71	+ 4 13.6	1.512	2.386	15.5	18.6
6 10	14 21.02	-36 26.5	1.400	2.278	16.4	19.5	6 10	14 29.40	+ 2 57.0	1.592	2.396	18.3	18.9
410343	2007 <i>UT</i> ₉₀		5 6.1 73°40	0°3/ 6.3	17		394279	2006 <i>UN</i> ₂₄₈		5 6.1 47°02	0°6/ 6.5	17	
4 1	15 20.72	-19 8.8	1.430	2.278	16.8	21.3	4 1	15 17.97	-18 31.0	2.062	2.895	13.0	20.8
4 11	15 15.67	-18 50.6	1.370	2.292	12.7	21.0	4 11	15 13.00	-18 37.3	1.988	2.902	9.8	20.6
4 21	15 7.90	-18 20.3	1.332	2.307	8.0	20.8	4 21	15 6.04	-18 36.2	1.937	2.909	6.2	20.4
5 1	14 58.39	-17 40.4	1.318	2.321	2.8	20.5	5 1	14 57.77	-18 28.6	1.913	2.916	2.3	20.2
5 11	14 48.44	-16 55.6	1.329	2.336	2.5	20.5	5 11	14 49.07	-18 16.7	1.917	2.924	1.9	20.2
5 21	14 39.36	-16 12.0	1.366	2.351	7.5	20.9	5 21	14 40.87	-18 3.4	1.948	2.932	5.8	20.4
5 31	14 32.25	-15 35.4	1.427	2.365	12.0	21.2	5 31	14 34.01	-17 51.9	2.006	2.940	9.3	20.7
6 10	14 27.80	-15 10.6	1.509	2.380	15.8	21.4	6 10	14 29.07	-17 45.5	2.087	2.948	12.5	20.9
111565	2002 <i>AP</i> ₄		5 6.1 12°35	1°2/ 5.3	18		97032	1999 <i>UL</i> ₃		5 6.1 146°30	2°5/ 8.1	18	
4 1	15 16.26	-13 46.4	1.986	2.833	12.9	18.8	4 1	15 20.68	-25 29.7	2.486	3.285	12.1	20.1
4 11	15 11.75	-13 37.1	1.911	2.834	9.6	18.6	4 11	15 14.77	-25 36.8	2.407	3.296	9.4	19.9
4 21	15 5.27	-13 23.4	1.860	2.836	6.0	18.4	4 21	15 7.03	-25 32.9	2.351	3.305	6.5	19.7
5 1	14 57.48	-13 7.5	1.835	2.839	2.2	18.1	5 1	14 58.09	-25 17.9	2.322	3.315	3.5	19.6
5 11	14 49.26	-12 52.2	1.837	2.842	2.6	18.2	5 11	14 48.78	-24 53.4	2.322	3.323	2.7	19.5
5 21	14 41.51	-12 40.8	1.867	2.845	6.5	18.4	5 21	14 39.94	-24 22.1	2.351	3.332	5.1	19.7
5 31	14 35.07	-12 36.1	1.922	2.848	10.1	18.6	5 31	14 32.34	-23 48.1	2.408	3.339	8.1	19.9
6 10	14 30.53	-12 40.2	1.999	2.852	13.2	18.9	6 10	14 26.52	-23 15.6	2.489	3.346	10.8	20.1
57786	2001 <i>VB</i> ₈₇		5 6.1 269°82	5°4/ 1.6	18		463977	2014 <i>WW</i> ₂₀		5 6.1 43°46	1°8/ 6.9	18	
4 1	15 16.40	- 6 21.1	1.843	2.699	13.3	18.9	4 1	15 22.27	-19 49.7	1.293	2.144	18.1	20.1
4 11	15 12.09	- 4 55.8	1.755	2.679	10.2	18.6	4 11	15 17.07	-20 17.1	1.242	2.164	13.8	19.8
4 21	15 5.63	- 3 26.3	1.690	2.660	7.1	18.4	4 21	15 8.89	-20 33.1	1.212	2.185	8.9	19.6
5 1	14 57.65	- 1 59.6	1.652	2.640	5.4	18.2	5 1	14 58.77	-20 37.5	1.205	2.207	3.7	19.4
5 11	14 49.06	- 0 43.3	1.640	2.619	6.9	18.3	5 11	14 48.20	-20 32.7	1.222	2.229	2.8	19.4
5 21	14 40.85	+ 0 16.4	1.655	2.599	10.1	18.4	5 21	14 38.63	-20 22.8	1.265	2.252	7.6	19.7
5 31	14 33.95	+ 0 54.8	1.694	2.578	13.6	18.6	5 31	14 31.28	-20 13.1	1.331	2.275	12.2	20.0
6 10	14 29.06	+ 1 10.7	1.752	2.557	16.8	18.8	6 10	14 26.86	-20 8.4	1.417	2.299	16.0	20.3
242183	2003 <i>HJ</i> ₅₄		5 6.1 70°45	0°6/ 5.6	18		155923	2001 <i>PB</i> ₁₄		5 6.1 329°74	5°4/ 3.1	18	
4 1	15 14.94	-17 43.0	2.186	3.024	12.2	20.0	4 1	15 14.00	- 9 57.6	1.066	1.953	18.4	18.7
4 11	15 10.49	-16 56.2	2.119	3.037	9.1	19.9	4 11	15 11.55	- 8 49.3	0.996	1.939	14.0	18.4
4 21	15 4.33	-16 0.8	2.075	3.050	5.6	19.7	4 21	15 5.89	- 7 32.8	0.944	1.926	9.2	18.1
5 1	14 57.12	-15 0.2	2.059	3.063	1.9	19.4	5 1	14 57.87	- 6 16.6	0.914	1.913	5.6	17.9
5 11	14 49.64	-13 58.8	2.071	3.076	2.2	19.5	5 11	14 48.94	- 5 11.2	0.906	1.902	7.3	17.9
5 21	14 42.70	-13 1.1	2.111	3.090	5.8	19.7	5 21	14 40.66	- 4 25.8	0.919	1.891	12.3	18.1
5 31	14 36.99	-12 11.6	2.178	3.103	9.2	20.0	5 31	14 34.48	- 4 6.7	0.952	1.882	17.4	18.4
6 10	14 32.98	-11 33.4	2.268	3.116	12.0	20.2	6 10	14 31.36	- 4 15.2	1.002	1.874	21.9	18.6
394718	2008 <i>EM</i> ₇₃		5 6.1 25°35	6°4/ 9.9	17		415728	1999 <i>UF</i> ₃₃		5 6.1 173°06	0°0/ 5.9	15	
4 1	15 21.66	-32 42.4	2.028	2.809	15.0	20.2	4 1	15 21.02	-18 28.4	2.015	2.844	13.4	23.3
4 11	15 16.25	-33 47.3	1.951	2.815	12.4	20.0	4 11	15 15.33	-18 4.5	1.935	2.847	10.1	23.1
4 21	15 8.32	-34 37.0	1.895	2.822	9.7	19.9	4 21	15 7.51	-17 31.2	1.878	2.850	6.3	22.8
5 1	14 58.60	-35 8.0	1.864	2.828	7.3	19.7	5 1	14 58.28	-16 50.5	1.848	2.852	2.2	22.6
5 11	14 48.18	-35 19.0	1.859	2.836	6.4	19.7	5 11	14 48.61	-16 6.0	1.847	2.854	2.1	22.6
5 21	14 38.24	-35 11.8	1.880	2.843	7.7	19.8	5 21	14 39.47	-15 22.2	1.874	2.854	6.2	22.8
5 31	14 29.88	-34 50.8	1.926	2.851	10.2	20.0	5 31	14 31.76	-14 43.7	1.928	2.854	10.1	23.1
6 10	14 23.89	-34 22.5	1.995	2.860	12.8	20.1	6 10	14 26.11	-14 14.5	2.004	2.854	13.3	23.3
13104	1993 <i>FV</i> ₂₄		5 6.1 335°64	0°9/ 6.6	18		508762	2017 <i>UW</i> ₄₀		5 6.			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
508879	2003 <i>SL</i> ₁₆		5 6.1 252°49	1.2°/ 5.2 18			165398	2000 <i>XE</i> ₂₃		5 6.1 200°55	3.5°/ 8.4 18		
4 1	15 18.99	-14 23.7	2.541	3.370	11.0	22.8	4 1	15 23.17	-26 43.4	1.860	2.668	15.2	20.8
4 11	15 13.59	-13 59.4	2.432	3.345	8.3	22.6	4 11	15 17.41	-26 55.6	1.773	2.665	12.0	20.6
4 21	15 6.40	-13 29.5	2.347	3.320	5.2	22.4	4 21	15 9.08	-26 52.9	1.707	2.661	8.4	20.4
5 1	14 57.93	-12 56.1	2.291	3.294	1.9	22.1	5 1	14 58.91	-26 34.1	1.666	2.657	4.9	20.1
5 11	14 48.90	-12 22.0	2.264	3.268	2.4	22.1	5 11	14 48.05	-26 0.6	1.652	2.652	3.7	20.1
5 21	14 40.08	-11 50.5	2.267	3.240	5.9	22.3	5 21	14 37.70	-25 16.2	1.665	2.647	6.7	20.2
5 31	14 32.24	-11 25.1	2.297	3.212	9.2	22.5	5 31	14 29.01	-24 27.2	1.705	2.641	10.5	20.4
6 10	14 25.99	-11 8.3	2.352	3.183	12.2	22.6	6 10	14 22.76	-23 40.2	1.767	2.634	14.1	20.6
329622	2003 <i>QY</i> ₂₅		5 6.1 291°49	0.6°/ 6.5 16			185399	2006 <i>WL</i> ₉₂		5 6.1 203°42	0.8°/ 5.4 17		
4 1	15 17.74	-20 0.0	1.856	2.693	14.1	21.0	4 1	15 16.12	-15 4.7	2.601	3.434	10.6	21.2
4 11	15 13.41	-19 42.8	1.748	2.664	10.8	20.7	4 11	15 11.26	-14 43.9	2.515	3.431	8.0	21.0
4 21	15 6.67	-19 13.8	1.663	2.635	7.0	20.4	4 21	15 4.83	-14 17.9	2.453	3.427	4.9	20.8
5 1	14 58.11	-18 34.3	1.603	2.606	2.6	20.1	5 1	14 57.37	-13 48.7	2.420	3.424	1.7	20.6
5 11	14 48.69	-17 47.2	1.569	2.576	2.2	20.0	5 11	14 49.55	-13 19.2	2.415	3.420	2.1	20.6
5 21	14 39.52	-16 57.4	1.563	2.547	6.8	20.2	5 21	14 42.07	-12 52.3	2.439	3.415	5.3	20.8
5 31	14 31.69	-16 10.8	1.582	2.517	11.3	20.4	5 31	14 35.58	-12 30.8	2.491	3.411	8.4	21.0
6 10	14 26.04	-15 32.8	1.623	2.487	15.2	20.6	6 10	14 30.60	-12 17.0	2.566	3.406	11.1	21.2
500917	2013 <i>PM</i> ₁₁		5 6.1 192°16	1.4°/ 7.4 18			426763	2013 <i>TZ</i> ₉₉		5 6.2 129°63	2.4°/ 7.9 17		
4 1	15 19.65	-23 28.3	2.717	3.519	11.0	22.7	4 1	15 21.53	-24 34.2	2.341	3.145	12.6	21.6
4 11	15 13.89	-23 11.5	2.623	3.517	8.5	22.5	4 11	15 15.48	-24 45.4	2.267	3.159	9.8	21.4
4 21	15 6.45	-22 44.4	2.553	3.514	5.6	22.3	4 21	15 7.51	-24 45.8	2.215	3.173	6.6	21.2
5 1	14 57.90	-22 7.9	2.512	3.510	2.6	22.1	5 1	14 58.29	-24 35.2	2.191	3.186	3.5	21.1
5 11	14 48.97	-21 24.2	2.500	3.505	1.9	22.0	5 11	14 48.70	-24 15.2	2.196	3.198	2.6	21.0
5 21	14 40.42	-20 36.6	2.518	3.500	4.8	22.2	5 21	14 39.63	-23 48.7	2.229	3.211	5.3	21.2
5 31	14 32.94	-19 49.1	2.565	3.493	7.8	22.4	5 31	14 31.88	-23 19.6	2.290	3.222	8.4	21.4
6 10	14 27.06	-19 5.7	2.637	3.486	10.5	22.6	6 10	14 26.03	-22 52.4	2.376	3.233	11.3	21.6
44554	1999 <i>CQ</i> ₉		5 6.1 33°69	5.7°/ 3.5 18			377802	2006 <i>AG</i> ₆₇		5 6.2 152°33	2.8°/ 3.9 17		
4 1	15 18.73	- 5 3.4	1.271	2.142	17.1	17.6	4 1	15 18.41	-10 16.4	2.215	3.056	11.9	22.1
4 11	15 14.23	- 4 31.7	1.224	2.157	13.0	17.4	4 11	15 13.07	- 9 33.8	2.144	3.064	8.9	21.9
4 21	15 7.02	- 4 3.6	1.198	2.172	8.8	17.2	4 21	15 5.98	- 8 48.2	2.098	3.071	5.7	21.7
5 1	14 58.12	- 3 45.0	1.195	2.188	5.9	17.1	5 1	14 57.76	- 8 3.4	2.079	3.078	3.0	21.5
5 11	14 48.85	- 3 40.9	1.215	2.206	6.9	17.2	5 11	14 49.22	- 7 23.5	2.089	3.084	3.9	21.6
5 21	14 40.51	- 3 54.2	1.260	2.224	10.6	17.4	5 21	14 41.18	- 6 52.1	2.126	3.090	7.0	21.8
5 31	14 34.16	- 4 25.3	1.326	2.242	14.5	17.7	5 31	14 34.36	- 6 32.0	2.190	3.095	10.1	22.0
6 10	14 30.43	- 5 12.7	1.411	2.261	17.9	18.0	6 10	14 29.28	- 6 24.7	2.277	3.099	12.9	22.2
505161	2012 <i>RV</i> ₁₈		5 6.1 212°30	2.8°/ 8.2 18			189139	2002 <i>CL</i> ₁₂₈		5 6.2 181°09	8.0°/ 29.5 17		
4 1	15 20.18	-25 40.5	2.422	3.223	12.3	21.7	4 1	15 16.67	+ 3 0.4	1.932	2.778	13.2	20.3
4 11	15 14.61	-25 55.0	2.328	3.217	9.7	21.5	4 11	15 12.01	+ 4 26.6	1.871	2.779	10.7	20.2
4 21	15 7.07	-25 58.7	2.257	3.211	6.7	21.3	4 21	15 5.42	+ 5 46.3	1.834	2.779	8.7	20.0
5 1	14 58.16	-25 50.9	2.213	3.204	3.8	21.1	5 1	14 57.59	+ 6 52.1	1.822	2.779	8.1	20.0
5 11	14 48.71	-25 32.6	2.197	3.197	3.0	21.0	5 11	14 49.39	+ 7 37.9	1.836	2.779	9.2	20.1
5 21	14 39.61	-25 6.4	2.209	3.190	5.4	21.2	5 21	14 41.72	+ 8 0.3	1.874	2.778	11.5	20.2
5 31	14 31.70	-24 36.0	2.250	3.182	8.5	21.4	5 31	14 35.35	+ 7 58.3	1.935	2.778	14.0	20.3
6 10	14 25.63	-24 6.2	2.314	3.174	11.4	21.5	6 10	14 30.87	+ 7 33.8	2.015	2.777	16.3	20.5
236577	2006 <i>HV</i> ₉₉		5 6.1 276°18	0.3°/ 5.9 17			457657	2009 <i>CJ</i> ₄₂		5 6.2 70°37	3.1°/ 4.4 16		
4 1	15 16.36	-17 51.6	1.990	2.829	13.1	21.3	4 1	15 21.76	-12 11.9	1.335	2.195	17.1	21.7
4 11	15 11.97	-17 22.3	1.901	2.819	9.9	21.1	4 11	15 16.31	-11 22.4	1.290	2.220	12.7	21.5
4 21	15 5.52	-16 43.6	1.834	2.809	6.2	20.8	4 21	15 8.21	-10 27.6	1.267	2.245	7.9	21.3
5 1	14 57.64	-15 57.6	1.794	2.798	2.1	20.5	5 1	14 58.52	- 9 33.3	1.268	2.270	3.6	21.1
5 11	14 49.23	-15 8.5	1.782	2.788	2.2	20.5	5 11	14 48.61	- 8 46.0	1.295	2.295	4.7	21.3
5 21	14 41.22	-14 20.8	1.796	2.777	6.4	20.8	5 21	14 39.74	- 8 11.3	1.347	2.319	9.1	21.6
5 31	14 34.52	-13 39.5	1.837	2.767	10.3	21.0	5 31	14 32.92	- 7 52.9	1.421	2.344	13.2	21.9
6 10	14 29.76	-13 8.5	1.900	2.756	13.7	21.2	6 10	14 28.75	- 7 51.8	1.516	2.368	16.8	22.2
437110	2012 <i>UX</i> ₁₁₇		5 6.1 180°10	0.7°/ 6.6 17			381458	Moiseenko		5 6.2 241°99	6.3°/ 30.9 17		
4 1	15 17.45	-19 54.0	2.121	2.951	12.8	21.7	4 1	15 15.63	- 3 23.1	1.859	2.715	13.2	20.8
4 11	15 12.62	-19 42.9	2.039	2.951	9.7	21.5	4 11	15 11.35	- 1 53.2	1.790	2.712	10.2	20.6
4 21	15 5.83	-19 22.6	1.981	2.951	6.2	21.3	4 21	15 5.07	- 0 23.6	1.745	2.709	7.5	20.4
5 1	14 57.72	-18 54.5	1.948	2.951	2.4	21.1	5 1	14 57.49	+ 0 58.3	1.726	2.705	6.3	20.3
5 11	14 49.18	-18 21.2	1.944	2.951	1.9	21.0	5 11	14 49.49	+ 2 5.5	1.734	2.702	7.6	20.4
5 21	14 41.08	-17 46.5	1.968	2.951	5.7	21.3	5 21	14 41.99	+ 2 53.0	1.767	2.699	10.4	20.6
5 31	14 34.27	-17 14.6	2.018	2.951	9.3	21.5	5 31	14 35.82	+ 3 17.8	1.823	2.695	13.4	20.7
6 10	14 29.34	-16 49.4	2.091	2.951	12.5	21.7	6 10	14 31.58	+ 3 20.2	1.899	2.691	16.1	20.9
519086	2010 <i>LR</i> ₅₇		5 6.1 247°90	0.1°/ 6.0 18			93551	2000 <i>UL</i> ₂₄		5 6.2 357°50	2.7°/ 4.8 18		
4 1	15 18.23	-16 2.2	2.689	3.513	10.5	21.6	4 1	15 21.23	- 9 15.3	1.783	2.630	14.1	18.6
4 11	15 12.90	-16 7.3	2.590	3.501	8.0	21.4	4 11	15 15.72	- 9 14.2	1.707	2.630	10.6	18.3
4 21	15 5.90	-16 8.0	2.516	3.487	5.0	21.2	4 21	15 7.90	- 9 12.8	1.655	2.629	6.8	18.1
5 1	14 57.75	-16 5.2	2.470	3.474	1.7	21.0	5 1	14 58.49	- 9 13.6	1.628	2.629	3.2	17.9
5 11	14 49.13	-16 0.5	2.454	3.460	1.7	21.0	5 11	14 48.54	- 9 19.5	1.629	2.629	3.9	17.9
5 21	14 40.76	-15 55.8	2.467	3.446	5.0	21.2	5 21	14 39.11	- 9 32.6	1.657	2.629	7.7	18.1
5 31	14 33.33	-15 53.5	2.508	3.432	8.2	21.3	5 31	14 31.20	- 9 54.9	1.710	2.629	11.6	18.4
6 10	14 27.41	-15 55.7	2.573	3.417	10.9	21.5	6 10	14 25.50	-10 27.0	1.785	2.629	15.0	18.6
144875	2004 <i>OX</i>		5 6.1 308°07	0.7°/ 6.5 18			457477	2008 <i>UP</i> ₂₄₇		5 6.2 107°50			

EPHEMERIDES

5 6.2

5 6.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
504579	2008 <i>TV</i> ₁₀₇		5 6.2 118°08	0°1/ 6.3 18			303874	2005 <i>TC</i> ₁₄		5 6.2 144°58	2°2/ 4.1 18		
4 1	15 13.84	-17 34.1	3.628	4.447	8.2	22.4	4 1	15 14.17	-12 39.3	2.415	3.257	11.0	20.8
4 11	15 9.11	-17 29.2	3.553	4.460	6.1	22.3	4 11	15 9.86	-11 44.0	2.338	3.260	8.2	20.6
4 21	15 3.30	-17 20.1	3.504	4.473	3.8	22.1	4 21	15 4.00	-10 43.6	2.286	3.262	5.1	20.4
5 1	14 56.81	-17 7.7	3.483	4.487	1.3	22.0	5 1	14 57.14	-9 41.9	2.263	3.264	2.4	20.2
5 11	14 50.14	-16 53.5	3.493	4.499	1.2	22.0	5 11	14 49.98	-8 43.2	2.267	3.265	3.3	20.3
5 21	14 43.74	-16 39.3	3.532	4.512	3.7	22.2	5 21	14 43.23	-7 51.7	2.301	3.267	6.3	20.5
5 31	14 38.07	-16 26.8	3.601	4.524	5.9	22.3	5 31	14 37.53	-7 10.8	2.360	3.269	9.3	20.7
6 10	14 33.48	-16 17.7	3.695	4.537	7.9	22.5	6 10	14 33.35	-6 42.6	2.443	3.271	11.9	20.8
426557	2013 <i>RV</i> ₈₉		5 6.2 165°63	0°4/ 5.8 17			209441	2004 <i>FY</i> ₉₉		5 6.2 192°56	4°7/ 1.7 18		
4 1	15 18.21	-18 10.6	1.968	2.804	13.4	21.6	4 1	15 15.23	-4 7.5	2.378	3.224	11.0	20.6
4 11	15 13.26	-17 33.5	1.890	2.807	10.1	21.4	4 11	15 10.66	-3 1.3	2.305	3.223	8.5	20.4
4 21	15 6.26	-16 46.5	1.836	2.809	6.3	21.1	4 21	15 4.51	-1 55.8	2.257	3.221	6.0	20.3
5 1	14 57.90	-15 52.3	1.807	2.811	2.1	20.9	5 1	14 57.33	-0 55.7	2.237	3.219	4.7	20.2
5 11	14 49.12	-14 55.3	1.807	2.813	2.2	20.9	5 11	14 49.83	-0 5.8	2.244	3.218	5.7	20.3
5 21	14 40.88	-14 0.8	1.835	2.815	6.4	21.2	5 21	14 42.73	+0 30.3	2.279	3.215	8.1	20.4
5 31	14 34.04	-13 13.6	1.888	2.816	10.2	21.4	5 31	14 36.68	+0 50.5	2.339	3.213	10.8	20.6
6 10	14 29.19	-12 37.7	1.965	2.817	13.5	21.6	6 10	14 32.16	+0 54.2	2.420	3.210	13.1	20.7
398662	2012 <i>UJ</i> ₇₉		5 6.2 96°65	2°5/ 7.7 17			36472	Ebina		5 6.2 260°26	1°7/ 5.3 17		
4 1	15 24.81	-23 7.1	2.431	3.231	12.3	21.3	4 1	15 21.44	-13 50.2	1.606	2.455	15.3	19.2
4 11	15 17.89	-23 50.5	2.360	3.250	9.5	21.2	4 11	15 16.41	-13 31.4	1.515	2.439	11.6	18.9
4 21	15 9.02	-24 25.4	2.313	3.269	6.4	21.0	4 21	15 8.66	-13 5.7	1.446	2.422	7.3	18.7
5 1	14 58.86	-24 50.6	2.294	3.288	3.5	20.8	5 1	14 58.91	-12 36.1	1.401	2.405	2.8	18.3
5 11	14 48.29	-25 6.2	2.305	3.306	2.8	20.8	5 11	14 48.29	-12 6.7	1.384	2.388	3.4	18.3
5 21	14 38.20	-25 13.7	2.346	3.325	5.3	21.0	5 21	14 38.07	-11 42.3	1.392	2.370	8.2	18.6
5 31	14 29.44	-25 15.9	2.415	3.342	8.3	21.2	5 31	14 29.46	-11 27.5	1.425	2.352	12.9	18.8
6 10	14 22.59	-25 16.4	2.509	3.360	10.9	21.4	6 10	14 23.36	-11 25.7	1.478	2.333	17.0	19.0
89503	2001 <i>XP</i> ₅₀		5 6.2 91°65	2°6/ 4.4 18			356152	2009 <i>HO</i> ₁₁		5 6.2 338°48	5°2/ 1.5 17		
4 1	15 17.48	-9 14.7	2.231	3.074	11.8	19.8	4 1	15 11.35	-8 20.7	1.732	2.598	13.5	19.6
4 11	15 12.44	-8 58.3	2.157	3.077	8.8	19.6	4 11	15 8.38	-6 39.4	1.655	2.587	10.2	19.4
4 21	15 5.64	-8 41.0	2.108	3.081	5.6	19.4	4 21	15 3.38	-4 52.1	1.601	2.575	7.0	19.2
5 1	14 57.69	-8 25.4	2.085	3.085	2.9	19.2	5 1	14 57.00	-3 6.6	1.574	2.565	5.2	19.1
5 11	14 49.38	-8 14.4	2.091	3.088	3.6	19.3	5 11	14 50.14	-1 31.6	1.573	2.555	6.7	19.1
5 21	14 41.51	-8 10.6	2.125	3.092	6.7	19.5	5 21	14 43.74	-0 14.2	1.597	2.546	10.0	19.3
5 31	14 34.81	-8 15.8	2.184	3.095	9.8	19.7	5 31	14 38.66	+0 40.5	1.645	2.538	13.5	19.5
6 10	14 29.82	-8 31.1	2.267	3.099	12.6	19.9	6 10	14 35.51	+1 10.8	1.712	2.531	16.6	19.7
502952	2015 <i>EB</i> ₆₂		5 6.2 72°88	5°6/ 2.4 17			133267	2003 <i>SJ</i> ₃		5 6.2 240°16	1°3/ 5.2 18		
4 1	15 17.64	-3 31.7	1.793	2.647	13.7	20.7	4 1	15 16.89	-15 13.8	2.053	2.894	12.7	20.3
4 11	15 12.83	-2 39.3	1.733	2.655	10.5	20.5	4 11	15 12.28	-14 37.6	1.968	2.888	9.5	20.1
4 21	15 5.98	-1 49.5	1.696	2.663	7.4	20.3	4 21	15 5.70	-13 53.9	1.906	2.882	5.9	19.9
5 1	14 57.82	-1 8.1	1.685	2.671	5.7	20.2	5 1	14 57.79	-13 5.9	1.871	2.875	2.2	19.6
5 11	14 49.31	-0 40.2	1.700	2.678	6.7	20.3	5 11	14 49.40	-12 17.6	1.865	2.868	2.8	19.6
5 21	14 41.41	-0 29.0	1.740	2.686	9.6	20.5	5 21	14 41.45	-11 33.8	1.885	2.861	6.6	19.9
5 31	14 34.95	-0 36.0	1.805	2.694	12.7	20.7	5 31	14 34.74	-10 58.6	1.932	2.854	10.3	20.1
6 10	14 30.50	-1 0.5	1.889	2.702	15.5	20.9	6 10	14 29.92	-10 35.0	2.001	2.847	13.5	20.3
102253	1999 <i>TH</i> ₂₈		5 6.2 261°26	0°4/ 6.4 18			96358	1997 <i>WK</i> ₅		5 6.2 340°31	2°5/ 5.1 18		
4 1	15 20.55	-19 36.4	1.785	2.620	14.6	20.5	4 1	15 13.38	-12 51.6	0.990	1.880	19.2	18.3
4 11	15 15.59	-19 18.4	1.685	2.599	11.2	20.2	4 11	15 11.45	-12 40.2	0.918	1.863	14.6	18.0
4 21	15 8.07	-18 48.7	1.606	2.578	7.2	19.9	4 21	15 6.10	-12 21.8	0.864	1.848	9.3	17.6
5 1	14 58.67	-18 8.5	1.553	2.557	2.7	19.6	5 1	14 58.13	-12 0.9	0.830	1.835	3.7	17.3
5 11	14 48.42	-17 21.1	1.527	2.534	2.3	19.5	5 11	14 49.02	-11 43.5	0.818	1.823	4.6	17.3
5 21	14 38.51	-16 31.7	1.529	2.512	7.1	19.7	5 21	14 40.52	-11 35.6	0.826	1.813	10.6	17.5
5 31	14 30.08	-15 46.3	1.556	2.488	11.6	19.9	5 31	14 34.25	-11 42.5	0.853	1.804	16.3	17.8
6 10	14 23.97	-15 10.3	1.604	2.465	15.6	20.1	6 10	14 31.30	-12 6.9	0.897	1.798	21.3	18.1
227451	2005 <i>WA</i> ₆₈		5 6.2 60°48	0°9/ 5.6 17			498230	2007 <i>UL</i> ₂₄		5 6.2 285°76	2°0/ 5.1 17		
4 1	15 18.29	-16 2.6	1.757	2.603	14.3	20.6	4 1	15 19.88	-14 14.2	1.477	2.332	16.0	22.0
4 11	15 13.58	-15 39.4	1.681	2.603	10.8	20.4	4 11	15 15.58	-13 45.0	1.379	2.306	12.2	21.6
4 21	15 6.60	-15 8.2	1.628	2.604	6.7	20.1	4 21	15 8.35	-13 6.7	1.301	2.279	7.7	21.3
5 1	14 58.08	-14 31.7	1.600	2.604	2.3	19.9	5 1	14 58.87	-12 22.5	1.248	2.252	3.0	21.0
5 11	14 49.05	-13 53.9	1.599	2.604	2.6	19.9	5 11	14 48.30	-11 37.6	1.221	2.225	3.9	20.9
5 21	14 40.57	-13 19.6	1.625	2.605	7.0	20.2	5 21	14 38.00	-10 58.2	1.218	2.197	9.1	21.1
5 31	14 33.61	-12 53.2	1.675	2.605	11.1	20.4	5 31	14 29.36	-10 30.5	1.239	2.169	14.2	21.4
6 10	14 28.83	-12 38.0	1.748	2.606	14.6	20.6	6 10	14 23.38	-10 18.9	1.280	2.141	18.7	21.5
312169	2007 <i>UW</i> ₁₀₇		5 6.2 90°21	1°0/ 6.8 16			19140	Jansmit		5 6.2 218°67	4°5/ 10.0 18		
4 1	15 23.29	-20 19.9	1.549	2.386	16.4	21.9	4 1	15 23.18	-33 23.9	2.089	2.862	14.9	18.8
4 11	15 17.45	-20 14.0	1.491	2.406	12.4	21.7	4 11	15 17.27	-32 54.1	1.986	2.852	12.2	18.6
4 21	15 9.00	-19 56.1	1.454	2.425	7.9	21.5	4 21	15 8.93	-32 2.3	1.905	2.841	9.0	18.4
5 1	14 58.88	-19 27.7	1.442	2.445	3.1	21.2	5 1	14 58.93	-30 47.5	1.850	2.830	5.9	18.2
5 11	14 48.39	-18 52.5	1.457	2.464	2.3	21.2	5 11	14 48.36	-29 12.1	1.823	2.817	4.5	18.0
5 21	14 38.77	-18 15.6	1.498	2.482	7.0	21.6	5 21	14 38.38	-27 22.4	1.824	2.803	6.5	18.1
5 31	14 31.09	-17 42.6	1.564	2.501	11.3	21.9	5 31	14 30.00	-25 27.0	1.854	2.789	9.9	18.3
6 10	14 26.00	-17 18.2	1.652	2.519	14.9	22.1	6 10	14 23.94	-23 35.1	1.909	2.774	13.3	18.5
380125	1996 <i>UC</i> ₁		5 6.2 250°35	1°3/ 6.9 17			405031	2001 <i>RO</i> ₃₆		5 6.2 277°53	0°5/ 5.8 16		
4 1	15 24.19	-21 2.4											

EPHEMERIDES

5 6.2

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
72034	2000 XS ₃₅		5 6.2	3°07'	15°7'	6.9 18	484231	2007 EE ₆₈		5 6.2	314°61'	2°5'	9.2 18
4 1	15 36.17	-34 12.6	1.066	1.872	24.2	17.1	4 1	15 12.08	-28 47.9	4.016	4.795	8.2	20.8
4 11	15 30.76	-38 12.8	1.002	1.870	21.1	16.9	4 11	15 7.95	-29 1.4	3.916	4.788	6.5	20.7
4 21	15 19.72	-42 2.6	0.956	1.869	18.1	16.7	4 21	15 2.71	-29 7.1	3.841	4.781	4.8	20.5
5 1	15 3.40	-45 21.0	0.933	1.870	16.1	16.6	5 1	14 56.73	-29 4.8	3.794	4.774	3.1	20.4
5 11	14 43.76	-47 48.9	0.931	1.873	15.9	16.6	5 11	14 50.47	-28 55.1	3.776	4.768	2.5	20.4
5 21	14 24.03	-49 17.9	0.950	1.877	17.5	16.7	5 21	14 44.39	-28 39.4	3.786	4.761	3.7	20.4
5 31	14 7.74	-49 54.4	0.989	1.883	20.2	16.9	5 31	14 38.96	-28 19.7	3.825	4.754	5.4	20.5
6 10	13 57.25	-49 55.6	1.043	1.891	23.0	17.1	6 10	14 34.54	-27 58.5	3.889	4.748	7.2	20.7
313087	2000 UD ₁₂		5 6.2	245°62'	5°8'	2.2 17	428778	2008 SB ₂₂₀		5 6.2	317°52'	6°2'	8.9 17
4 1	15 21.54	- 3 31.7	1.888	2.732	13.5	21.7	4 1	15 21.09	-28 58.6	1.587	2.401	17.1	20.5
4 11	15 16.02	- 2 34.1	1.797	2.713	10.6	21.5	4 11	15 16.67	-30 1.3	1.494	2.384	14.0	20.3
4 21	15 8.20	- 1 36.8	1.729	2.692	7.6	21.3	4 21	15 9.15	-30 50.0	1.421	2.368	10.5	20.0
5 1	14 58.72	- 0 45.8	1.687	2.671	5.8	21.1	5 1	14 59.20	-31 20.4	1.372	2.353	7.3	19.8
5 11	14 48.54	- 0 7.0	1.672	2.649	7.0	21.2	5 11	14 48.07	-31 30.3	1.347	2.338	6.3	19.7
5 21	14 38.71	+ 0 14.9	1.684	2.626	10.1	21.3	5 21	14 37.24	-31 21.0	1.346	2.323	8.6	19.8
5 31	14 30.21	+ 0 17.3	1.721	2.602	13.6	21.4	5 31	14 28.21	-30 57.7	1.370	2.309	12.3	19.9
6 10	14 23.81	- 0 0.3	1.777	2.577	16.8	21.6	6 10	14 22.07	-30 28.3	1.414	2.296	16.1	20.1
406464	2007 UY ₂₃		5 6.2	99°83'	1°8'	5.1 16	133781	2003 WP ₉₈		5 6.2	198°97'	2°3'	7.9 17
4 1	15 21.70	-14 16.3	1.605	2.453	15.3	21.6	4 1	15 18.35	-24 31.9	2.044	2.861	13.7	19.9
4 11	15 16.10	-13 42.3	1.547	2.470	11.4	21.4	4 11	15 13.52	-24 30.0	1.960	2.861	10.6	19.7
4 21	15 8.11	-13 1.4	1.511	2.487	7.1	21.2	4 21	15 6.55	-24 15.3	1.898	2.860	7.2	19.5
5 1	14 58.60	-12 17.5	1.501	2.504	2.7	21.0	5 1	14 58.12	-23 48.3	1.863	2.859	3.7	19.3
5 11	14 48.76	-11 35.6	1.517	2.520	3.4	21.0	5 11	14 49.20	-23 11.1	1.854	2.859	2.7	19.2
5 21	14 39.72	-11 0.6	1.560	2.536	7.7	21.3	5 21	14 40.75	-22 27.7	1.873	2.858	5.8	19.4
5 31	14 32.45	-10 36.9	1.628	2.552	11.7	21.6	5 31	14 33.69	-21 43.2	1.919	2.857	9.4	19.6
6 10	14 27.56	-10 26.7	1.717	2.567	15.2	21.9	6 10	14 28.66	-21 2.9	1.988	2.856	12.7	19.8
178755	2000 VL ₄₂		5 6.2	243°76'	0°9'	7.0 18	509925	2009 HW ₁₀₈		5 6.2	283°30'	5°5'	28.2 18
4 1	15 16.14	-21 36.7	2.627	3.444	11.0	20.9	4 1	15 11.31	+13 2.2	4.421	5.216	7.2	20.4
4 11	15 11.43	-21 19.1	2.528	3.431	8.4	20.7	4 11	15 7.09	+13 28.9	4.355	5.211	6.3	20.4
4 21	15 5.07	-20 52.1	2.452	3.419	5.5	20.5	4 21	15 2.04	+13 47.8	4.315	5.206	5.6	20.3
5 1	14 57.57	-20 16.9	2.405	3.406	2.3	20.2	5 1	14 56.47	+13 56.8	4.301	5.201	5.5	20.3
5 11	14 49.65	-19 35.9	2.386	3.392	1.7	20.2	5 11	14 50.75	+13 54.1	4.313	5.196	5.9	20.3
5 21	14 42.02	-18 52.3	2.396	3.379	4.9	20.4	5 21	14 45.23	+13 39.1	4.352	5.191	6.8	20.4
5 31	14 35.39	-18 10.0	2.434	3.365	8.0	20.5	5 31	14 40.27	+13 11.8	4.415	5.186	7.9	20.5
6 10	14 30.31	-17 32.6	2.496	3.350	10.9	20.7	6 10	14 36.14	+12 33.1	4.499	5.181	8.9	20.5
297696	2001 VT ₃₇		5 6.2	135°07'	1°4'	7.1 18	122601	2000 RT ₃₉		5 6.2	283°81'	1°5'	5.5 18
4 1	15 20.92	-23 14.0	1.527	2.362	16.6	20.7	4 1	15 22.13	-12 1.4	1.808	2.650	14.1	18.5
4 11	15 15.91	-22 42.1	1.455	2.368	12.8	20.4	4 11	15 16.64	-12 14.4	1.718	2.638	10.7	18.3
4 21	15 8.20	-21 53.1	1.404	2.374	8.3	20.2	4 21	15 8.68	-12 25.6	1.650	2.625	6.7	18.0
5 1	14 58.69	-20 49.1	1.378	2.379	3.5	19.9	5 1	14 58.93	-12 36.4	1.609	2.613	2.6	17.7
5 11	14 48.65	-19 35.1	1.377	2.384	2.5	19.9	5 11	14 48.41	-12 48.7	1.595	2.600	3.0	17.7
5 21	14 39.39	-18 18.8	1.404	2.389	7.2	20.2	5 21	14 38.25	-13 4.7	1.609	2.587	7.3	17.9
5 31	14 32.03	-17 8.1	1.455	2.394	11.7	20.4	5 31	14 29.54	-13 26.5	1.648	2.575	11.5	18.1
6 10	14 27.27	-16 9.7	1.527	2.398	15.7	20.7	6 10	14 23.09	-13 55.9	1.710	2.562	15.1	18.3
416708	2005 AL ₇₄		5 6.2	306°00'	5°8'	26.3 18	264302	1999 CG ₅₁		5 6.2	80°88'	4°2'	3.5 18
4 1	15 8.97	+14 34.4	4.406	5.201	7.3	20.3	4 1	15 21.08	- 7 50.0	1.698	2.549	14.5	20.0
4 11	15 5.39	+15 19.1	4.350	5.198	6.4	20.3	4 11	15 15.32	- 6 57.2	1.654	2.577	10.8	19.8
4 21	15 1.00	+15 55.9	4.317	5.196	5.9	20.2	4 21	15 7.45	- 6 4.0	1.632	2.604	7.1	19.7
5 1	14 56.10	+16 22.0	4.311	5.194	5.9	20.2	5 1	14 58.35	- 5 16.0	1.636	2.631	4.4	19.6
5 11	14 51.05	+16 35.7	4.330	5.191	6.4	20.2	5 11	14 49.09	- 4 38.2	1.668	2.658	5.4	19.7
5 21	14 46.20	+16 36.1	4.374	5.189	7.2	20.3	5 21	14 40.66	- 4 14.3	1.726	2.684	8.7	19.9
5 31	14 41.88	+16 23.0	4.440	5.186	8.2	20.4	5 31	14 33.88	- 4 6.5	1.808	2.710	12.0	20.2
6 10	14 38.37	+15 57.3	4.527	5.184	9.2	20.5	6 10	14 29.27	- 4 14.7	1.912	2.736	14.9	20.4
117251	2004 SD ₄₁		5 6.2	321°58'	5°2'	8.5 18	104864	2000 HF ₈₂		5 6.2	124°26'	0°3'	6.4 18
4 1	15 23.09	-27 16.6	1.699	2.511	16.2	19.3	4 1	15 21.44	-18 27.3	1.852	2.685	14.2	19.8
4 11	15 17.83	-28 18.1	1.612	2.504	13.1	19.1	4 11	15 15.81	-18 19.2	1.782	2.696	10.8	19.6
4 21	15 9.66	-29 7.1	1.547	2.497	9.6	18.9	4 21	15 7.94	-18 2.3	1.734	2.706	6.8	19.4
5 1	14 59.31	-29 40.0	1.506	2.491	6.3	18.7	5 1	14 58.59	-17 38.0	1.712	2.716	2.4	19.1
5 11	14 47.97	-29 55.3	1.491	2.485	5.3	18.6	5 11	14 48.81	-17 9.4	1.719	2.725	2.1	19.1
5 21	14 37.05	-29 54.3	1.502	2.480	7.8	18.7	5 21	14 39.65	-16 40.5	1.752	2.735	6.4	19.4
5 31	14 27.86	-29 41.8	1.538	2.474	11.4	18.9	5 31	14 32.06	-16 15.8	1.812	2.743	10.3	19.6
6 10	14 21.38	-29 24.4	1.596	2.469	15.0	19.1	6 10	14 26.66	-15 58.8	1.894	2.752	13.7	19.9
27030	1998 QW ₁₀₅		5 6.2	173°62'	5°2'	2.3 17	422928	2002 TA ₂₂₉		5 6.2	228°69'	3°6'	3.5 17
4 1	15 19.47	- 4 12.5	2.029	2.873	12.7	19.8	4 1	15 18.99	- 9 26.5	1.946	2.793	13.1	21.9
4 11	15 14.06	- 3 12.7	1.959	2.876	9.8	19.6	4 11	15 13.96	- 8 31.3	1.861	2.783	9.9	21.7
4 21	15 6.73	- 2 13.9	1.914	2.879	6.9	19.4	4 21	15 6.83	- 7 32.0	1.799	2.772	6.4	21.5
5 1	14 58.14	- 1 21.6	1.895	2.880	5.2	19.3	5 1	14 58.24	- 6 33.3	1.764	2.761	3.8	21.3
5 11	14 49.18	- 0 40.8	1.904	2.882	6.3	19.4	5 11	14 49.11	- 5 40.7	1.757	2.749	4.9	21.3
5 21	14 40.74	- 0 15.4	1.940	2.882	9.0	19.5	5 21	14 40.40	- 4 59.1	1.777	2.737	8.3	21.5
5 31	14 33.61	- 0 7.3	2.001	2.882	12.0	19.7	5 31	14 33.01	- 4 32.4	1.822	2.724	11.9	21.7
6 10	14 28.36	- 0 16.7	2.083	2.882	14.7	19.9	6 10	14 27.61	- 4 22.4	1.888	2.710	15.1	21.9
102944	1999 XE ₅₂		5 6.2	185°59'	1°3'	7.2 18	95563	2002 EU ₁₀₁		5 6.2	313°91'	2°9'	7.7 18
4 1	15 17.94	-22 13.3	2.077	2.901	13.2								

EPHEMERIDES

5 6.2

5 6.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
266185	2006 VS ₁₀₀		5 6.2 189°97	1.4°/ 5.2 17			126477	2002 CB ₄₈		5 6.2 183°57	0.8°/ 6.9 18		
4 1	15 20.34	-14 36.4	1.985	2.823	13.2	21.6	4 1	15 19.17	-21 46.5	2.420	3.234	11.9	20.7
4 11	15 14.91	-14 7.7	1.904	2.822	9.9	21.4	4 11	15 13.73	-21 16.3	2.332	3.235	9.1	20.5
4 21	15 7.37	-13 32.4	1.846	2.820	6.2	21.2	4 21	15 6.50	-20 35.4	2.268	3.235	5.8	20.3
5 1	14 58.42	-12 53.4	1.815	2.819	2.3	20.9	5 1	14 58.10	-19 45.3	2.233	3.234	2.3	20.1
5 11	14 48.98	-12 14.6	1.812	2.816	2.8	20.9	5 11	14 49.33	-18 49.3	2.226	3.233	1.7	20.0
5 21	14 40.03	-11 40.1	1.838	2.813	6.8	21.2	5 21	14 40.99	-17 51.6	2.249	3.231	5.2	20.2
5 31	14 32.45	-11 14.1	1.889	2.810	10.6	21.4	5 31	14 33.84	-16 56.9	2.299	3.228	8.6	20.4
6 10	14 26.89	-10 59.2	1.963	2.805	13.9	21.6	6 10	14 28.41	-16 9.2	2.375	3.225	11.5	20.6
275205	2009 WO ₁₆₆		5 6.2 241°56	4.1°/ 3.2 18			439619	2014 EJ ₄₈		5 6.2 136°26	4.3°/ 2.5 18		
4 1	15 17.96	- 6 37.2	2.045	2.892	12.5	20.6	4 1	15 16.44	- 3 34.6	2.500	3.341	10.7	21.4
4 11	15 13.07	- 5 54.6	1.962	2.883	9.5	20.4	4 11	15 11.45	- 2 51.9	2.435	3.349	8.2	21.2
4 21	15 6.22	- 5 11.2	1.903	2.873	6.4	20.2	4 21	15 4.97	- 2 11.3	2.394	3.357	5.8	21.1
5 1	14 58.02	- 4 31.5	1.871	2.864	4.2	20.0	5 1	14 57.55	- 1 36.6	2.381	3.365	4.4	21.0
5 11	14 49.33	- 4 0.1	1.866	2.854	5.2	20.1	5 11	14 49.87	- 1 11.3	2.396	3.372	5.2	21.1
5 21	14 41.05	- 3 40.7	1.888	2.844	8.3	20.2	5 21	14 42.61	- 0 57.8	2.438	3.380	7.4	21.2
5 31	14 33.99	- 3 35.8	1.936	2.833	11.6	20.4	5 31	14 36.39	- 0 57.7	2.507	3.386	9.9	21.4
6 10	14 28.79	- 3 46.2	2.005	2.823	14.5	20.6	6 10	14 31.66	- 1 10.8	2.597	3.393	12.2	21.6
9283	Martinelvis		5 6.2 164°19	1.0°/ 5.5 18			8515	Corvan		5 6.2 296°31	8.5°/ 10.7 18		
4 1	15 20.37	-15 54.0	1.984	2.820	13.3	18.9	4 1	15 22.35	-36 16.5	1.771	2.545	17.1	17.5
4 11	15 14.88	-15 22.1	1.908	2.825	10.0	18.7	4 11	15 17.62	-37 20.7	1.673	2.528	14.6	17.3
4 21	15 7.32	-14 42.6	1.855	2.829	6.2	18.5	4 21	15 9.77	-38 6.6	1.595	2.510	11.9	17.0
5 1	14 58.39	-13 58.2	1.829	2.833	2.2	18.2	5 1	14 59.47	-38 28.4	1.538	2.492	9.5	16.8
5 11	14 49.04	-13 13.0	1.831	2.836	2.6	18.3	5 11	14 47.96	-38 23.4	1.506	2.475	8.5	16.7
5 21	14 40.24	-12 31.6	1.862	2.839	6.6	18.5	5 21	14 36.76	-37 52.5	1.499	2.458	9.7	16.8
5 31	14 32.84	-11 58.3	1.919	2.841	10.3	18.7	5 31	14 27.35	-37 1.7	1.515	2.441	12.3	16.9
6 10	14 27.47	-11 36.0	1.998	2.843	13.6	19.0	6 10	14 20.85	-36 0.1	1.552	2.424	15.4	17.0
223271	2003 GY ₃₂		5 6.2 48°92	0.9°/ 5.6 17			36571	2000 QQ ₁₂₁		5 6.2 266°96	1°0' / 6.9 18		
4 1	15 18.09	-16 33.4	1.525	2.379	15.7	20.5	4 1	15 18.45	-21 20.9	1.886	2.717	14.1	19.4
4 11	15 13.62	-16 5.0	1.464	2.390	11.8	20.2	4 11	15 13.85	-21 3.8	1.791	2.702	10.9	19.2
4 21	15 6.70	-15 27.4	1.425	2.402	7.3	20.0	4 21	15 6.93	-20 34.5	1.718	2.687	7.1	18.9
5 1	14 58.18	-14 44.0	1.410	2.414	2.5	19.7	5 1	14 58.35	-19 53.8	1.670	2.672	2.9	18.6
5 11	14 49.25	-13 59.7	1.421	2.427	2.8	19.8	5 11	14 49.09	-19 5.2	1.650	2.657	2.1	18.6
5 21	14 41.07	-13 20.0	1.458	2.440	7.5	20.1	5 21	14 40.22	-18 13.3	1.657	2.642	6.4	18.8
5 31	14 34.63	-12 50.0	1.519	2.453	11.7	20.4	5 31	14 32.75	-17 24.0	1.690	2.626	10.6	19.0
6 10	14 30.58	-12 32.9	1.601	2.466	15.4	20.6	6 10	14 27.45	-16 42.7	1.745	2.610	14.3	19.2
307202	2002 FO ₁₄		5 6.2 50°02	3.4°/ 4.7 18			319364	2006 DU ₂₉		5 6.2 324°96	2.4°/ 7.6 17		
4 1	15 21.71	-10 23.5	1.190	2.058	18.2	20.0	4 1	15 18.12	-23 10.1	1.716	2.548	15.2	20.5
4 11	15 16.72	-10 3.9	1.142	2.075	13.6	19.8	4 11	15 13.81	-23 20.4	1.631	2.540	11.9	20.3
4 21	15 8.76	- 9 41.6	1.114	2.093	8.6	19.5	4 21	15 6.99	-23 18.0	1.567	2.533	8.0	20.1
5 1	14 58.90	- 9 21.5	1.109	2.111	4.0	19.3	5 1	14 58.38	-23 2.9	1.528	2.526	3.9	19.8
5 11	14 48.63	- 9 8.6	1.129	2.130	4.9	19.4	5 11	14 49.06	-22 36.9	1.514	2.520	2.9	19.7
5 21	14 39.41	- 9 7.0	1.172	2.149	9.6	19.7	5 21	14 40.22	-22 4.1	1.527	2.513	6.7	19.9
5 31	14 32.40	- 9 19.1	1.238	2.168	14.1	20.0	5 31	14 32.95	-21 29.8	1.565	2.507	10.8	20.1
6 10	14 28.30	- 9 45.5	1.322	2.188	17.9	20.3	6 10	14 28.05	-20 59.8	1.625	2.502	14.6	20.4
86246	1999 TO ₁₄₃		5 6.2 153°73	2.6°/ 8.5 18			126552	2002 CV ₉₈		5 6.2 146°89	3.2°/ 3.9 17		
4 1	15 17.10	-26 32.9	2.685	3.483	11.3	19.8	4 1	15 18.39	- 9 36.3	1.961	2.808	13.0	20.2
4 11	15 12.10	-26 35.6	2.599	3.486	8.9	19.6	4 11	15 13.37	- 8 56.7	1.890	2.812	9.7	20.0
4 21	15 5.46	-26 27.4	2.538	3.490	6.2	19.4	4 21	15 6.38	- 8 14.5	1.842	2.816	6.2	19.8
5 1	14 57.73	-26 8.3	2.503	3.493	3.6	19.2	5 1	14 58.08	- 7 33.8	1.822	2.820	3.4	19.6
5 11	14 49.64	-25 40.0	2.496	3.497	2.7	19.2	5 11	14 49.40	- 6 59.0	1.828	2.824	4.3	19.6
5 21	14 41.93	-25 5.0	2.519	3.500	4.8	19.3	5 21	14 41.23	- 6 34.1	1.862	2.827	7.7	19.9
5 31	14 35.29	-24 27.2	2.568	3.502	7.5	19.5	5 31	14 34.42	- 6 21.8	1.921	2.830	11.1	20.1
6 10	14 30.23	-23 50.5	2.643	3.505	10.1	19.7	6 10	14 29.53	- 6 23.4	2.002	2.833	14.1	20.3
12854	1998 HA ₁₃		5 6.2 298°81	0.7°/ 6.7 18			277738	2006 DK ₉₅		5 6.2 77°34	0.9°/ 5.6 17		
4 1	15 17.95	-21 8.2	1.482	2.328	16.4	18.6	4 1	15 17.58	-16 7.4	1.872	2.716	13.6	20.7
4 11	15 14.31	-20 40.9	1.374	2.295	12.8	18.2	4 11	15 12.92	-15 39.7	1.799	2.720	10.2	20.5
4 21	15 7.70	-19 56.6	1.287	2.261	8.4	17.9	4 21	15 6.16	-15 4.4	1.749	2.725	6.3	20.3
5 1	14 58.74	-18 56.0	1.223	2.226	3.2	17.5	5 1	14 58.02	-14 24.0	1.725	2.729	2.2	20.0
5 11	14 48.58	-17 43.3	1.185	2.192	2.6	17.4	5 11	14 49.45	-13 42.8	1.728	2.734	2.5	20.0
5 21	14 38.63	-16 25.8	1.171	2.157	8.2	17.6	5 21	14 41.43	-13 5.3	1.759	2.738	6.7	20.3
5 31	14 30.32	-15 12.4	1.182	2.123	13.7	17.8	5 31	14 34.84	-12 35.8	1.814	2.743	10.5	20.6
6 10	14 24.73	-14 11.7	1.212	2.089	18.5	18.0	6 10	14 30.27	-12 17.2	1.893	2.747	13.8	20.8
503195	2015 HL ₆		5 6.2 328°82	4.9°/ 9.9 18			112685	2002 PY ₉₈		5 6.2 261°65	4.3°/ 3.4 17		
4 1	15 16.75	-31 43.1	1.761	2.564	16.1	20.3	4 1	15 18.95	- 8 21.2	1.673	2.528	14.4	20.0
4 11	15 12.82	-31 35.3	1.673	2.558	13.1	20.1	4 11	15 14.29	- 7 31.6	1.590	2.516	11.0	19.8
4 21	15 6.35	-31 6.3	1.606	2.551	9.7	19.9	4 21	15 7.23	- 6 38.8	1.530	2.503	7.3	19.5
5 1	14 58.12	-30 14.9	1.562	2.545	6.3	19.7	5 1	14 58.46	- 5 48.1	1.494	2.491	4.5	19.3
5 11	14 49.28	-29 3.8	1.544	2.540	4.9	19.6	5 11	14 49.02	- 5 5.6	1.485	2.477	5.7	19.4
5 21	14 41.01	-27 38.6	1.552	2.535	7.0	19.7	5 21	14 40.04	- 4 36.4	1.502	2.464	9.4	19.6
5 31	14 34.41	-26 7.6	1.585	2.530	10.6	19.9	5 31	14 32.56	- 4 24.2	1.543	2.451	13.3	19.8
6 10	14 30.22	-24 39.8	1.641	2.525	14.1	20.1	6 10	14 27.33	- 4 30.4	1.604	2.437	16.9	20.0
277700	2006 CC ₅₇		5 6.2 350°28	4.2°/ 3.2 17			429511	2011 BG ₂₁		5 6.2 126°55	0.1°/ 6.3 15		
4 1	15 16.26	- 8 24.9	1.775	2.63									

EPHEMERIDES

5 6.2

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
201670	2003 <i>UT</i> ₆₀		5 6.2 212°68	2°9/ 4.1 18			199176	2005 <i>YW</i> ₂₁₆		5 6.2 46°07	5°0/ 8.9 18		
4 1	15 18.61	- 8 58.9	2.183	3.025	12.0	20.1	4 1	15 21.32	-27 58.5	1.237	2.072	19.8	20.0
4 11	15 13.44	- 8 33.0	2.101	3.021	9.1	19.9	4 11	15 16.98	-28 20.0	1.174	2.080	15.8	19.8
4 21	15 6.40	- 8 5.6	2.044	3.016	5.8	19.7	4 21	15 9.27	-28 20.0	1.130	2.089	11.2	19.6
5 1	14 58.11	- 7 39.8	2.014	3.012	3.2	19.5	5 1	14 59.23	-27 56.8	1.108	2.099	6.8	19.3
5 11	14 49.37	- 7 19.3	2.011	3.007	4.0	19.6	5 11	14 48.47	-27 12.5	1.109	2.109	5.2	19.3
5 21	14 41.04	- 7 7.0	2.037	3.002	7.1	19.8	5 21	14 38.67	-26 14.0	1.133	2.120	8.4	19.5
5 31	14 33.89	- 7 5.3	2.089	2.996	10.4	19.9	5 31	14 31.25	-25 10.7	1.181	2.130	12.9	19.8
6 10	14 28.52	- 7 15.2	2.163	2.990	13.3	20.1	6 10	14 27.05	-24 12.3	1.248	2.141	17.0	20.0
261194	2005 <i>TQ</i> ₁₅₄		5 6.2 77°73	6°4/10.1 17			232872	2004 <i>VN</i> ₂₂		5 6.2 243°60	0°5/ 6.6 17		
4 1	15 25.46	-32 24.1	1.734	2.522	16.9	20.4	4 1	15 19.31	-19 55.7	2.261	3.084	12.3	21.8
4 11	15 19.34	-33 14.9	1.671	2.541	13.8	20.2	4 11	15 14.15	-19 38.8	2.159	3.067	9.4	21.5
4 21	15 10.39	-33 46.9	1.629	2.561	10.5	20.1	4 21	15 6.98	-19 12.3	2.081	3.050	6.0	21.3
5 1	14 59.53	-33 56.8	1.610	2.580	7.6	19.9	5 1	14 58.38	-18 37.5	2.030	3.033	2.3	21.0
5 11	14 48.10	-33 44.4	1.616	2.600	6.4	19.9	5 11	14 49.20	-17 56.9	2.008	3.015	1.8	20.9
5 21	14 37.48	-33 13.3	1.649	2.619	8.0	20.0	5 21	14 40.33	-17 14.4	2.014	2.996	5.7	21.2
5 31	14 28.85	-32 30.1	1.706	2.638	10.8	20.2	5 31	14 32.62	-16 34.5	2.048	2.977	9.4	21.3
6 10	14 22.98	-31 43.0	1.786	2.657	13.8	20.5	6 10	14 26.75	-16 1.3	2.105	2.957	12.7	21.5
491	Carina		5 6.2 173°14	5°5/30.3 18			222706	2002 <i>AC</i> ₇₈		5 6.2 146°45	2°6/ 4.3 17		
4 1	15 13.80	- 0 31.6	2.620	3.462	10.3	14.4	4 1	15 19.81	-10 20.5	2.105	2.946	12.5	21.3
4 11	15 9.48	+ 0 46.7	2.553	3.463	8.1	14.3	4 11	15 14.30	- 9 49.2	2.035	2.954	9.3	21.1
4 21	15 3.76	+ 2 2.3	2.512	3.465	6.2	14.2	4 21	15 6.91	- 9 15.2	1.988	2.962	5.9	20.9
5 1	14 57.15	+ 3 10.2	2.498	3.465	5.5	14.1	5 1	14 58.30	- 8 42.0	1.969	2.969	3.0	20.7
5 11	14 50.28	+ 4 5.6	2.512	3.466	6.4	14.2	5 11	14 49.34	- 8 13.4	1.978	2.976	3.8	20.8
5 21	14 43.77	+ 4 45.5	2.553	3.467	8.4	14.3	5 21	14 40.90	- 7 52.7	2.015	2.982	7.0	21.0
5 31	14 38.20	+ 5 8.2	2.619	3.467	10.6	14.5	5 31	14 33.76	- 7 42.4	2.079	2.988	10.3	21.2
6 10	14 33.99	+ 5 13.6	2.706	3.467	12.6	14.6	6 10	14 28.47	- 7 44.1	2.164	2.993	13.2	21.4
248515	2005 <i>VX</i> ₇₇		5 6.2 289°87	3°0/ 8.1 18			6840	1995 <i>WW</i> ₅		5 6.2 155°13	1°9/ 4.9 18 R		
4 1	15 19.00	-25 2.0	2.271	3.079	12.8	20.4	4 1	15 20.86	-13 25.4	1.915	2.755	13.5	18.8
4 11	15 14.05	-25 27.9	2.168	3.062	10.1	20.2	4 11	15 15.30	-12 51.5	1.842	2.762	10.1	18.6
4 21	15 6.99	-25 43.8	2.089	3.045	7.0	19.9	4 21	15 7.63	-12 11.9	1.793	2.768	6.3	18.4
5 1	14 58.38	-25 48.7	2.036	3.028	4.0	19.7	5 1	14 58.57	-11 29.9	1.771	2.774	2.6	18.1
5 11	14 49.08	-25 42.8	2.010	3.011	3.2	19.6	5 11	14 49.10	-10 50.0	1.777	2.779	3.3	18.2
5 21	14 40.03	-25 28.3	2.013	2.994	5.8	19.8	5 21	14 40.21	-10 16.2	1.810	2.784	7.1	18.4
5 31	14 32.15	-25 8.8	2.042	2.977	9.1	19.9	5 31	14 32.76	- 9 52.5	1.870	2.788	10.8	18.7
6 10	14 26.17	-24 48.7	2.095	2.960	12.2	20.1	6 10	14 27.39	- 9 41.1	1.951	2.791	14.0	18.9
390938	2005 <i>GS</i> ₁₂₆		5 6.2 177°23	0°7/ 5.5 18			90195	2003 <i>AQ</i> ₅₄		5 6.2 143°08	0°1/ 6.1 18		
4 1	15 16.24	-17 7.3	2.396	3.228	11.4	21.7	4 1	15 20.68	-17 34.5	1.897	2.731	13.9	20.5
4 11	15 11.50	-16 23.6	2.314	3.230	8.6	21.6	4 11	15 15.26	-17 19.7	1.823	2.738	10.5	20.3
4 21	15 5.11	-15 31.9	2.257	3.230	5.3	21.3	4 21	15 7.66	-16 56.6	1.771	2.744	6.5	20.0
5 1	14 57.64	-14 35.0	2.227	3.231	1.8	21.1	5 1	14 58.59	-16 27.1	1.746	2.750	2.3	19.8
5 11	14 49.84	-13 36.8	2.226	3.231	2.1	21.1	5 11	14 49.08	-15 54.4	1.749	2.756	2.1	19.8
5 21	14 42.46	-12 41.7	2.254	3.231	5.6	21.4	5 21	14 40.14	-15 22.8	1.780	2.761	6.4	20.0
5 31	14 36.18	-11 53.7	2.309	3.231	8.9	21.6	5 31	14 32.68	-14 56.4	1.836	2.766	10.3	20.3
6 10	14 31.52	-11 16.0	2.388	3.230	11.7	21.8	6 10	14 27.35	-14 38.9	1.915	2.770	13.6	20.5
507448	2012 <i>TC</i> ₃₈		5 6.2 238°33	1°1/ 7.1 17			329002	2010 <i>XN</i> ₄₃		5 6.2 99°88	4°9/ 2.6 18		
4 1	15 17.64	-21 40.5	2.141	2.966	12.9	21.7	4 1	15 18.72	- 7 8.7	1.743	2.596	14.0	20.6
4 11	15 12.91	-21 24.7	2.052	2.959	9.9	21.5	4 11	15 13.68	- 5 52.3	1.688	2.612	10.6	20.4
4 21	15 6.17	-20 57.9	1.985	2.953	6.4	21.2	4 21	15 6.57	- 4 34.8	1.657	2.628	7.1	20.2
5 1	14 58.05	-20 21.2	1.945	2.946	2.7	21.0	5 1	14 58.18	- 3 22.7	1.652	2.643	5.0	20.1
5 11	14 49.44	-19 37.7	1.932	2.939	1.9	20.9	5 11	14 49.52	- 2 22.6	1.674	2.658	6.2	20.2
5 21	14 41.24	-18 51.3	1.948	2.932	5.7	21.1	5 21	14 41.55	- 1 39.3	1.722	2.672	9.3	20.4
5 31	14 34.30	-18 6.8	1.990	2.925	9.3	21.3	5 31	14 35.11	- 1 15.5	1.794	2.686	12.6	20.7
6 10	14 29.25	-17 28.8	2.056	2.917	12.6	21.5	6 10	14 30.73	- 1 11.3	1.886	2.700	15.4	20.9
512486	2016 <i>QD</i> ₇₈		5 6.2 281°42	3°8/ 9.2 17			409318	2004 <i>TA</i> ₂₂₁		5 6.2 250°34	1°8/ 5.2 15		
4 1	15 17.10	-29 25.8	2.215	3.013	13.4	20.7	4 1	15 22.41	-13 51.6	1.709	2.552	14.8	22.1
4 11	15 12.60	-29 25.7	2.120	3.003	10.8	20.5	4 11	15 17.08	-13 25.4	1.613	2.533	11.2	21.9
4 21	15 6.04	-29 10.4	2.046	2.993	7.8	20.3	4 21	15 9.12	-12 51.9	1.539	2.514	7.1	21.6
5 1	14 58.03	-28 39.3	1.998	2.983	4.9	20.1	5 1	14 59.22	-12 14.0	1.491	2.494	2.8	21.2
5 11	14 49.47	-27 53.8	1.976	2.973	3.8	20.0	5 11	14 48.45	-11 36.2	1.470	2.474	3.5	21.2
5 21	14 41.31	-26 57.9	1.982	2.963	5.9	20.1	5 21	14 38.03	-11 3.4	1.476	2.452	8.1	21.5
5 31	14 34.44	-25 56.8	2.015	2.954	9.0	20.3	5 31	14 29.12	-10 40.5	1.508	2.430	12.6	21.7
6 10	14 29.52	-24 56.7	2.072	2.944	12.1	20.5	6 10	14 22.62	-10 31.0	1.560	2.408	16.6	21.9
437744	2014 <i>EG</i> ₄₀		5 6.2 207°44	4°3/ 2.4 17			153552	2001 <i>SZ</i> ₁₃₂		5 6.2 158°77	0°9/ 6.9 17		
4 1	15 15.80	- 3 44.1	2.563	3.404	10.5	21.3	4 1	15 20.54	-21 10.1	2.254	3.072	12.5	21.1
4 11	15 11.05	- 3 15.5	2.486	3.401	8.1	21.1	4 11	15 14.86	-20 51.3	2.175	3.079	9.6	21.0
4 21	15 4.79	- 2 20.5	2.433	3.397	5.7	20.9	4 21	15 7.28	-20 22.4	2.119	3.086	6.1	20.8
5 1	14 57.54	- 1 44.8	2.408	3.393	4.3	20.8	5 1	14 58.45	-19 44.6	2.091	3.092	2.5	20.5
5 11	14 49.97	- 1 18.1	2.412	3.389	5.1	20.9	5 11	14 49.24	-19 1.0	2.091	3.098	1.8	20.5
5 21	14 42.74	- 1 2.9	2.443	3.384	7.4	21.0	5 21	14 40.54	-18 15.5	2.120	3.103	5.5	20.7
5 31	14 36.48	- 1 0.8	2.499	3.379	9.9	21.2	5 31	14 33.14	-17 32.7	2.177	3.107	8.9	21.0
6 10	14 31.68	- 1 12.3	2.578	3.374	12.3	21.3	6 10	14 27.60	-16 56.5	2.258	3.110	11.9	21.2
340951	2007 <i>ER</i> ₇₁		5 6.2 347°19	0°3/ 5.9 18			179525	2002 <i>CJ</i> ₁₈₃		5 6.2 318°98	13°		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
498743	2008 TW ₁₆₀		5 6.2 167°51	1°3/ 5.3 17			287268	2002 TY ₁₅₁		5 6.2 111°79	4°1/ 8.6 17		
4 1	15 18.62	-14 2.6	2.143	2.981	12.4	22.4	4 1	15 23.48	-26 56.5	1.716	2.527	16.1	21.5
4 11	15 13.49	-13 40.7	2.065	2.983	9.3	22.2	4 11	15 17.84	-27 24.9	1.642	2.536	12.8	21.3
4 21	15 6.46	-13 13.7	2.011	2.985	5.7	22.0	4 21	15 9.52	-27 38.3	1.590	2.544	9.0	21.0
5 1	14 58.18	-12 44.0	1.984	2.987	2.2	21.7	5 1	14 59.33	-27 34.9	1.562	2.551	5.4	20.8
5 11	14 49.49	-12 15.0	1.985	2.989	2.6	21.7	5 11	14 48.51	-27 15.6	1.560	2.559	4.3	20.8
5 21	14 41.26	-11 50.2	2.014	2.990	6.3	22.0	5 21	14 38.35	-26 44.2	1.585	2.566	7.0	21.0
5 31	14 34.28	-11 32.6	2.070	2.991	9.8	22.2	5 31	14 30.00	-26 6.7	1.635	2.574	10.7	21.2
6 10	14 29.12	-11 24.8	2.148	2.991	12.8	22.4	6 10	14 24.24	-25 29.8	1.708	2.581	14.2	21.4
308523	2005 UM ₇₅		5 6.2 235°56	5°7/11.6 18			137854	2000 AG ₅₄		5 6.2 138°02	4°9/10.1 18		
4 1	15 18.62	-37 15.3	2.649	3.395	12.7	20.5	4 1	15 24.14	-32 41.9	2.111	2.885	14.7	21.3
4 11	15 13.59	-37 28.8	2.550	3.388	10.7	20.4	4 11	15 17.87	-32 47.5	2.034	2.899	12.0	21.2
4 21	15 6.60	-37 25.8	2.473	3.380	8.6	20.2	4 21	15 9.28	-32 35.0	1.980	2.913	8.9	21.0
5 1	14 58.25	-37 4.3	2.421	3.373	6.6	20.1	5 1	14 59.19	-32 3.1	1.950	2.925	6.1	20.9
5 11	14 49.41	-36 24.6	2.395	3.365	5.7	20.0	5 11	14 48.68	-31 13.4	1.948	2.937	4.9	20.8
5 21	14 40.96	-35 29.5	2.396	3.357	6.4	20.0	5 21	14 38.86	-30 10.2	1.974	2.949	6.5	20.9
5 31	14 33.74	-34 23.6	2.424	3.348	8.4	20.1	5 31	14 30.68	-29 0.1	2.027	2.959	9.3	21.1
6 10	14 28.36	-33 13.0	2.477	3.340	10.7	20.3	6 10	14 24.78	-27 50.3	2.104	2.969	12.2	21.3
352612	2008 EH ₁₃₆		5 6.2 99°73	0°9/ 6.9 17			80108	1999 RL ₂₉		5 6.2 275°35	16°8/20.6 18		
4 1	15 18.25	-19 49.3	2.464	3.284	11.5	21.2	4 1	15 16.91	+ 9 44.1	1.089	1.956	19.6	18.6
4 11	15 13.01	-19 54.3	2.388	3.295	8.7	21.1	4 11	15 13.69	+13 28.5	1.042	1.945	17.6	18.5
4 21	15 6.08	-19 52.1	2.337	3.305	5.6	20.9	4 21	15 7.28	+16 59.3	1.017	1.934	16.8	18.4
5 1	14 58.03	-19 43.3	2.314	3.315	2.3	20.7	5 1	14 58.62	+19 55.4	1.012	1.923	17.7	18.4
5 11	14 49.65	-19 29.7	2.319	3.326	1.7	20.6	5 11	14 49.16	+22 0.2	1.027	1.912	20.0	18.5
5 21	14 41.69	-19 13.9	2.353	3.336	5.0	20.9	5 21	14 40.44	+23 6.7	1.058	1.901	22.8	18.6
5 31	14 34.87	-18 58.9	2.414	3.345	8.1	21.1	5 31	14 33.85	+23 16.1	1.103	1.890	25.6	18.8
6 10	14 29.70	-18 47.5	2.499	3.355	10.8	21.3	6 10	14 30.25	+22 36.4	1.158	1.879	28.0	18.9
94590	2001 VP ₅₈		5 6.2 119°37	3°7/ 8.0 18			512469	2016 QV ₅₃		5 6.2 293°81	5°7/ 1.1 17		
4 1	15 24.09	-24 40.8	1.443	2.272	17.7	19.8	4 1	15 14.38	- 5 0.7	1.934	2.790	12.7	21.4
4 11	15 18.77	-25 11.5	1.369	2.275	14.0	19.6	4 11	15 10.56	- 3 31.2	1.851	2.775	9.8	21.2
4 21	15 10.32	-25 27.5	1.315	2.278	9.6	19.3	4 21	15 4.79	- 1 59.4	1.792	2.759	7.1	21.0
5 1	14 59.65	-25 26.7	1.285	2.280	5.3	19.1	5 1	14 57.66	- 0 32.2	1.760	2.743	5.7	20.9
5 11	14 48.15	-25 10.2	1.280	2.283	4.1	19.0	5 11	14 50.04	+ 0 43.4	1.754	2.728	7.1	20.9
5 21	14 37.35	-24 42.1	1.301	2.286	7.8	19.2	5 21	14 42.79	+ 1 41.4	1.775	2.712	10.0	21.1
5 31	14 28.63	-24 9.0	1.346	2.288	12.2	19.5	5 31	14 36.75	+ 2 18.0	1.818	2.697	13.1	21.2
6 10	14 22.89	-23 38.3	1.411	2.291	16.2	19.7	6 10	14 32.55	+ 2 32.3	1.882	2.681	16.0	21.4
336513	2008 XD ₁		5 6.2 221°12	3°3/ 8.9 18			475616	2006 UD ₁₆₇		5 6.2 149°12	0°5/ 5.9 17		
4 1	15 20.00	-28 36.6	2.448	3.237	12.5	21.3	4 1	15 18.64	-15 12.2	2.297	3.129	11.8	21.4
4 11	15 14.60	-28 38.2	2.348	3.228	10.0	21.1	4 11	15 13.45	-15 12.7	2.216	3.131	8.9	21.2
4 21	15 7.23	-28 26.3	2.272	3.218	7.2	20.9	4 21	15 6.44	-15 8.5	2.159	3.132	5.5	21.0
5 1	14 58.49	-28 0.4	2.221	3.208	4.4	20.8	5 1	14 58.21	-15 1.1	2.130	3.134	1.9	20.8
5 11	14 49.20	-27 21.6	2.199	3.197	3.4	20.7	5 11	14 49.56	-14 52.5	2.129	3.135	2.0	20.8
5 21	14 40.28	-26 33.2	2.206	3.185	5.5	20.8	5 21	14 41.31	-14 45.2	2.157	3.136	5.6	21.0
5 31	14 32.55	-25 39.9	2.240	3.173	8.5	20.9	5 31	14 34.22	-14 41.9	2.211	3.137	9.0	21.2
6 10	14 26.67	-24 47.2	2.298	3.160	11.4	21.1	6 10	14 28.86	-14 44.6	2.289	3.139	11.9	21.4
5735	Loripaul		5 6.2 318°68	4°0/ 8.4 18			500856	2013 HT ₁₅₆		5 6.2 240°25	0°0/ 6.1 17		
4 1	15 17.03	-26 19.8	1.255	2.100	18.9	17.0	4 1	14 56.18	-16 10.1	43.752	44.576	0.7	24.2
4 11	15 13.98	-26 26.7	1.171	2.085	15.1	16.7	4 11	14 55.54	-16 7.4	43.664	44.575	0.5	24.2
4 21	15 7.64	-26 13.1	1.105	2.070	10.6	16.4	4 21	14 54.83	-16 4.4	43.603	44.575	0.3	24.1
5 1	14 58.80	-25 37.2	1.060	2.056	5.9	16.1	5 1	14 54.09	-16 1.3	43.571	44.575	0.1	24.1
5 11	14 48.87	-24 41.5	1.038	2.042	4.3	15.9	5 11	14 53.33	-15 58.1	43.568	44.574	0.1	24.1
5 21	14 39.48	-23 32.6	1.040	2.029	8.4	16.1	5 21	14 52.58	-15 55.0	43.594	44.574	0.3	24.1
5 31	14 32.20	-22 20.3	1.064	2.017	13.5	16.3	5 31	14 51.87	-15 52.1	43.649	44.573	0.5	24.1
6 10	14 28.07	-21 14.8	1.107	2.006	18.2	16.6	6 10	14 51.23	-15 49.4	43.730	44.573	0.7	24.2
199635	2006 GW ₄		5 6.2 275°10	0°9/ 5.7 17			441186	2007 TO ₄₃₄		5 6.2 202°82	1°0/ 5.1 17		
4 1	15 18.73	-15 1.8	1.948	2.790	13.3	20.5	4 1	15 12.43	-12 45.2	4.087	4.913	7.2	22.6
4 11	15 13.93	-14 51.3	1.858	2.777	10.1	20.3	4 11	15 8.10	-12 30.5	3.996	4.908	5.4	22.5
4 21	15 6.95	-14 34.9	1.790	2.765	6.3	20.1	4 21	15 2.81	-12 13.6	3.931	4.904	3.3	22.4
5 1	14 58.42	-14 14.4	1.748	2.752	2.2	19.8	5 1	14 56.90	-11 55.9	3.896	4.898	1.3	22.2
5 11	14 49.26	-13 53.0	1.734	2.740	2.5	19.8	5 11	14 50.77	-11 38.9	3.891	4.893	1.7	22.2
5 21	14 40.46	-13 34.0	1.747	2.727	6.7	20.0	5 21	14 44.84	-11 24.3	3.916	4.887	3.7	22.4
5 31	14 32.98	-13 21.3	1.786	2.714	10.6	20.2	5 31	14 39.49	-11 13.6	3.970	4.881	5.8	22.5
6 10	14 27.52	-13 17.7	1.847	2.701	14.1	20.4	6 10	14 35.04	-11 7.9	4.049	4.875	7.6	22.6
131049	2000 YP ₃₈		5 6.2 230°70	0°7/ 6.7 17			333933	1999 VF ₁₈		5 6.2 191°91	1°2/ 7.1 18		
4 1	15 20.92	-20 46.9	1.821	2.651	14.6	20.2	4 1	15 19.98	-21 16.8	2.343	3.160	12.2	21.4
4 11	15 15.77	-20 22.3	1.729	2.641	11.2	20.0	4 11	15 14.51	-21 15.3	2.255	3.158	9.3	21.2
4 21	15 8.18	-19 44.8	1.659	2.630	7.2	19.7	4 21	15 7.14	-21 4.8	2.191	3.156	6.1	21.0
5 1	14 58.87	-18 56.0	1.615	2.618	2.8	19.4	5 1	14 58.47	-20 45.8	2.154	3.154	2.6	20.7
5 11	14 48.87	-17 59.6	1.599	2.606	2.1	19.3	5 11	14 49.33	-20 20.3	2.145	3.151	1.9	20.7
5 21	14 39.33	-17 1.1	1.610	2.593	6.7	19.6	5 21	14 40.59	-19 51.4	2.165	3.148	5.3	20.9
5 31	14 31.30	-16 6.7	1.646	2.580	11.0	19.8	5 31	14 33.05	-19 22.8	2.213	3.144	8.7	21.1
6 10	14 25.56	-15 22.1	1.706	2.566	14.8	20.0	6 10	14 27.30	-18 58.5	2.285	3.140	11.7	21.3
77916	2001 WL ₈₇		5 6.2 298°01	0°9/ 7.5 18			102143	1999 RC ₁₈₆		5 6.2 193°46	1°1/ 5.4 17		
4 1	15 10.30	-22 1.3	4.										

EPHEMERIDES

5 6.2

5 6.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
410429	2008 BQ ₁₈		5 6.2 118°30	3.4/ 4.0	17		33396	Vrindamadan		5 6.2 274°81	6.3/ 2.4	17	
4 1	15 20.29	-10 35.4	1.701	2.551	14.5	20.9	4 1	15 19.48	-5 7.2	1.483	2.344	15.6	18.5
4 11	15 15.03	-9 44.5	1.638	2.563	10.8	20.7	4 11	15 15.06	-4 2.9	1.401	2.327	12.1	18.2
4 21	15 7.53	-8 49.6	1.599	2.574	6.9	20.5	4 21	15 7.95	-2 57.1	1.340	2.310	8.5	17.9
5 1	14 58.59	-7 55.7	1.585	2.585	3.7	20.3	5 1	14 58.87	-1 57.3	1.303	2.292	6.3	17.8
5 11	14 49.29	-7 8.5	1.599	2.595	4.7	20.4	5 11	14 48.98	-1 11.2	1.291	2.274	7.7	17.8
5 21	14 40.67	-6 32.8	1.639	2.605	8.4	20.6	5 21	14 39.54	-0 44.9	1.304	2.256	11.4	17.9
5 31	14 33.65	-6 12.0	1.703	2.615	12.1	20.9	5 31	14 31.74	-0 41.9	1.339	2.238	15.5	18.1
6 10	14 28.84	-6 7.6	1.789	2.624	15.3	21.1	6 10	14 26.44	-1 2.5	1.392	2.220	19.2	18.3
66751	1999 TP ₁₅₆		5 6.2 162°96	1.6/ 4.9	18		217897	2001 SW ₃₆		5 6.2 149°79	4.4/ 8.7	18	
4 1	15 17.44	-14 56.4	2.143	2.982	12.3	19.8	4 1	15 25.07	-27 43.4	1.958	2.755	14.9	20.5
4 11	15 12.59	-14 8.3	2.066	2.985	9.2	19.6	4 11	15 18.88	-28 26.9	1.877	2.760	11.9	20.3
4 21	15 5.90	-13 13.0	2.013	2.988	5.7	19.4	4 21	15 10.14	-28 57.3	1.818	2.765	8.6	20.1
5 1	14 58.02	-12 14.1	1.988	2.991	2.2	19.1	5 1	14 59.60	-29 12.1	1.785	2.770	5.5	19.9
5 11	14 49.78	-11 16.1	1.991	2.993	2.9	19.2	5 11	14 48.36	-29 11.1	1.780	2.774	4.5	19.9
5 21	14 42.03	-10 23.8	2.022	2.995	6.5	19.4	5 21	14 37.64	-28 56.5	1.801	2.778	6.8	20.0
5 31	14 35.51	-9 41.2	2.080	2.997	9.9	19.6	5 31	14 28.54	-28 33.2	1.849	2.782	10.1	20.2
6 10	14 30.78	-9 11.3	2.160	2.999	12.9	19.8	6 10	14 21.85	-28 7.1	1.920	2.785	13.2	20.4
85141	1981 EM ₂₈		5 6.2 339°13	14.2/11.1	17		290612	2005 UV ₂₁₆		5 6.2 139°48	0.7/ 5.7	17	
4 1	15 27.32	-45 57.1	1.750	2.466	19.3	18.9	4 1	15 17.12	-14 43.8	2.455	3.288	11.1	20.6
4 11	15 22.61	-48 25.2	1.661	2.449	17.7	18.7	4 11	15 12.19	-14 36.5	2.374	3.290	8.4	20.4
4 21	15 13.78	-50 34.7	1.591	2.433	16.0	18.5	4 21	15 5.61	-14 25.0	2.318	3.292	5.2	20.2
5 1	15 1.26	-52 15.0	1.540	2.418	14.7	18.4	5 1	14 57.94	-14 10.7	2.290	3.293	1.8	20.0
5 11	14 46.49	-53 17.9	1.511	2.404	14.2	18.3	5 11	14 49.89	-13 56.0	2.290	3.295	2.0	20.0
5 21	14 31.56	-53 40.0	1.503	2.391	14.7	18.3	5 21	14 42.22	-13 43.4	2.318	3.297	5.4	20.3
5 31	14 18.81	-53 25.4	1.515	2.380	16.0	18.4	5 31	14 35.61	-13 35.5	2.374	3.298	8.6	20.5
6 10	14 10.01	-52 44.0	1.545	2.369	17.8	18.4	6 10	14 30.59	-13 34.3	2.454	3.300	11.3	20.6
101118	1998 RJ ₅₃		5 6.2 273°39	1°0/ 6.9	18		378652	2008 GR ₄₁		5 6.2 229°26	2°0/ 3.1	17	
4 1	15 19.95	-20 50.3	1.716	2.551	15.1	20.4	4 1	15 8.30	-8 2.3	4.528	5.364	6.4	21.6
4 11	15 15.34	-20 38.8	1.617	2.531	11.7	20.2	4 11	15 4.95	-7 20.1	4.444	5.361	4.8	21.5
4 21	15 8.11	-20 14.7	1.540	2.511	7.6	19.9	4 21	15 0.83	-6 37.1	4.388	5.358	3.1	21.4
5 1	14 58.93	-19 38.7	1.488	2.490	3.1	19.6	5 1	14 56.22	-5 55.4	4.361	5.354	2.0	21.3
5 11	14 48.88	-18 54.0	1.462	2.469	2.3	19.4	5 11	14 51.45	-5 16.9	4.364	5.351	2.5	21.3
5 21	14 39.16	-18 5.4	1.463	2.448	7.1	19.7	5 21	14 46.86	-4 43.4	4.396	5.348	4.1	21.4
5 31	14 30.97	-17 19.3	1.489	2.427	11.6	19.9	5 31	14 42.76	-4 16.5	4.456	5.344	5.7	21.5
6 10	14 25.19	-16 41.6	1.537	2.405	15.7	20.1	6 10	14 39.40	-3 57.2	4.541	5.341	7.3	21.7
134007	2004 VZ ₁₈		5 6.2 195°76	0°3/ 6.4	18		306980	2001 VV ₁₀₁		5 6.2 267°02	2°0/ 7.4	16	
4 1	15 18.62	-19 7.2	2.024	2.856	13.2	20.7	4 1	15 21.16	-23 35.2	1.557	2.389	16.5	21.2
4 11	15 13.71	-18 49.3	1.942	2.855	10.0	20.5	4 11	15 16.59	-23 20.0	1.458	2.368	13.0	21.0
4 21	15 6.73	-18 21.8	1.882	2.854	6.4	20.2	4 21	15 9.07	-22 47.7	1.380	2.347	8.7	20.6
5 1	14 58.34	-17 46.7	1.849	2.852	2.3	20.0	5 1	14 59.32	-21 58.3	1.326	2.326	4.0	20.3
5 11	14 49.48	-17 7.1	1.844	2.851	1.9	19.9	5 11	14 48.56	-20 55.1	1.298	2.304	2.8	20.2
5 21	14 41.09	-16 27.1	1.866	2.849	6.0	20.2	5 21	14 38.18	-19 44.3	1.295	2.282	7.6	20.4
5 31	14 34.04	-15 51.5	1.915	2.847	9.8	20.4	5 31	14 29.54	-18 34.3	1.318	2.259	12.5	20.6
6 10	14 28.96	-15 23.9	1.987	2.845	13.1	20.6	6 10	14 23.62	-17 33.3	1.361	2.236	17.0	20.8
430070	2013 SU ₃₇		5 6.2 166°51	2°4/ 4.3	17		82158	2001 FP ₁₈₅		5 6.2 179°06	0°6/ 29.2	15	
4 1	15 19.11	-10 59.4	2.307	3.144	11.6	22.0	4 1	14 56.31	+ 5 31.9	36.931	37.755	0.9	22.1
4 11	15 13.68	-10 20.3	2.231	3.149	8.7	21.8	4 11	14 55.65	+ 5 38.9	36.877	37.765	0.7	22.0
4 21	15 6.52	-9 37.9	2.181	3.153	5.5	21.6	4 21	14 54.92	+ 5 45.3	36.849	37.776	0.6	22.0
5 1	14 58.23	-8 55.4	2.157	3.157	2.7	21.5	5 1	14 54.14	+ 5 51.0	36.848	37.787	0.6	22.0
5 11	14 49.61	-8 16.7	2.163	3.161	3.5	21.5	5 11	14 53.35	+ 5 55.6	36.875	37.798	0.6	22.0
5 21	14 41.43	-7 45.3	2.198	3.163	6.6	21.7	5 21	14 52.57	+ 5 59.2	36.929	37.809	0.8	22.1
5 31	14 34.43	-7 24.1	2.259	3.165	9.7	21.9	5 31	14 51.84	+ 6 1.5	37.008	37.820	0.9	22.1
6 10	14 29.12	-7 14.9	2.343	3.167	12.5	22.1	6 10	14 51.18	+ 6 2.6	37.110	37.831	1.1	22.1
21953	1999 VB ₁₇₆		5 6.2 176°44	2°0/ 4.8	18		212524	2006 RO ₅₇		5 6.2 190°03	0°9/ 6.9	17	
4 1	15 18.94	-12 0.5	2.201	3.039	12.1	19.4	4 1	15 17.60	-20 37.6	2.451	3.271	11.6	21.4
4 11	15 13.69	-11 36.1	2.122	3.041	9.0	19.2	4 11	15 12.63	-20 29.0	2.364	3.270	8.8	21.2
4 21	15 6.60	-11 8.0	2.068	3.042	5.7	18.9	4 21	15 5.93	-20 11.9	2.302	3.269	5.7	21.0
5 1	14 58.28	-10 39.0	2.041	3.043	2.5	18.7	5 1	14 58.06	-19 47.3	2.267	3.268	2.3	20.8
5 11	14 49.56	-10 12.5	2.042	3.043	3.1	18.8	5 11	14 49.79	-19 17.4	2.260	3.267	1.7	20.8
5 21	14 41.28	-9 51.7	2.072	3.043	6.5	19.0	5 21	14 41.89	-18 45.4	2.282	3.265	5.1	21.0
5 31	14 34.20	-9 39.5	2.128	3.043	9.8	19.2	5 31	14 35.10	-18 15.0	2.331	3.263	8.3	21.2
6 10	14 28.90	-9 37.7	2.207	3.042	12.8	19.4	6 10	14 29.97	-17 49.4	2.405	3.261	11.2	21.4
267365	2001 XO ₇₀		5 6.2 126°66	2°1/ 4.6	17		292609	2006 TW ₁₂₀		5 6.3 104°87	5°4/ 1.3	18	
4 1	15 20.00	-12 34.1	2.190	3.026	12.2	21.7	4 1	15 15.18	-1 28.6	2.365	3.209	11.1	20.7
4 11	15 14.33	-11 53.0	2.126	3.043	9.1	21.6	4 11	15 10.65	-0 25.3	2.305	3.219	8.7	20.5
4 21	15 6.89	-11 7.4	2.086	3.060	5.6	21.4	4 21	15 4.59	+ 0 34.8	2.270	3.228	6.4	20.4
5 1	14 58.34	-10 21.0	2.074	3.076	2.5	21.2	5 1	14 57.57	+ 1 26.7	2.262	3.237	5.4	20.4
5 11	14 49.54	-9 37.6	2.091	3.091	3.2	21.3	5 11	14 50.31	+ 2 6.2	2.281	3.245	6.3	20.4
5 21	14 41.31	-9 1.2	2.136	3.105	6.5	21.5	5 21	14 43.49	+ 2 30.4	2.327	3.254	8.5	20.6
5 31	14 34.36	-8 34.8	2.208	3.119	9.7	21.7	5 31	14 37.73	+ 2 37.8	2.397	3.263	10.8	20.7
6 10	14 29.22	-8 20.3	2.303	3.133	12.5	21.9	6 10	14 33.50	+ 2 29.0	2.489	3.271	13.0	20.9
214918	2007 TD ₃₃₈		5 6.2 178°23	2°4/ 4.7	16		504172	2006 SX ₃₈₀		5 6.3 96°19	6°3/ 30.9	17	
4 1	15 22.08	-11 45.7	1.841	2.683	13.9	21.2							

EPHEMERIDES

5 6.3

5 6.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
514587	2001 <i>WK</i> ₁₀₄		5 6.3 180°95	1.8/ 3.6	18		67968	2000 <i>WN</i> ₁₉₀		5 6.3 286°71	0.3/ 6.5	18	
4 1	15 9.05	- 7 40.5	4.513	5.348	6.4	21.5	4 1	15 18.17	-19 2.1	1.781	2.620	14.4	19.4
4 11	15 5.51	- 7 18.0	4.433	5.348	4.8	21.4	4 11	15 13.80	-18 47.5	1.689	2.607	11.0	19.1
4 21	15 1.19	- 6 55.5	4.379	5.349	3.1	21.3	4 21	15 7.04	-18 22.3	1.620	2.593	7.0	18.8
5 1	14 56.36	- 6 34.3	4.354	5.348	1.9	21.2	5 1	14 58.57	-17 48.2	1.576	2.580	2.6	18.5
5 11	14 51.38	- 6 16.4	4.358	5.348	2.4	21.2	5 11	14 49.40	-17 8.5	1.559	2.566	2.2	18.5
5 21	14 46.58	- 6 2.9	4.392	5.348	3.9	21.3	5 21	14 40.63	-16 28.0	1.569	2.553	6.8	18.7
5 31	14 42.27	- 5 55.0	4.454	5.348	5.6	21.4	5 31	14 33.31	-15 51.8	1.603	2.539	11.1	18.9
6 10	14 38.72	- 5 53.5	4.540	5.348	7.2	21.6	6 10	14 28.21	-15 24.8	1.600	2.526	14.8	19.1
100753	1998 <i>FN</i> ₁		5 6.3 70°06	3.4/ 4.1	18		19535	Rowanatkinson		5 6.3 287°08	1.5/ 7.2	18	
4 1	15 19.28	-10 4.7	1.668	2.522	14.5	18.9	4 1	15 18.71	-21 52.4	1.783	2.615	14.7	18.1
4 11	15 14.23	- 9 20.9	1.615	2.541	10.9	18.7	4 11	15 14.34	-21 46.5	1.684	2.595	11.4	17.8
4 21	15 7.00	- 8 34.5	1.585	2.560	6.9	18.6	4 21	15 7.48	-21 28.1	1.606	2.575	7.5	17.5
5 1	14 58.43	- 7 50.3	1.580	2.579	3.7	18.4	5 1	14 58.76	-20 57.6	1.554	2.555	3.3	17.2
5 11	14 49.58	- 7 13.3	1.602	2.598	4.6	18.5	5 11	14 49.21	-20 17.5	1.528	2.534	2.4	17.1
5 21	14 41.47	- 6 47.8	1.650	2.617	8.2	18.7	5 21	14 39.99	-19 32.4	1.528	2.514	6.7	17.3
5 31	14 34.97	- 6 36.6	1.722	2.636	11.8	19.0	5 31	14 32.23	-18 48.1	1.554	2.494	11.1	17.5
6 10	14 30.63	- 6 40.4	1.816	2.655	14.9	19.2	6 10	14 26.76	-18 10.4	1.602	2.473	15.0	17.7
229793	2008 <i>RB</i> ₉₀		5 6.3 205°76	3.1/ 8.4	17		104324	2000 <i>FX</i> ₄		5 6.3 308°32	5.5/ 8.5	18	
4 1	15 19.70	-26 20.3	2.027	2.836	14.0	20.7	4 1	15 22.45	-28 0.3	1.843	2.648	15.4	19.0
4 11	15 14.69	-26 25.5	1.941	2.835	11.1	20.5	4 11	15 17.59	-29 2.1	1.730	2.617	12.6	18.7
4 21	15 7.45	-26 17.0	1.877	2.833	7.7	20.3	4 21	15 9.83	-29 53.4	1.639	2.585	9.4	18.5
5 1	14 58.66	-25 54.2	1.838	2.831	4.4	20.1	5 1	14 59.70	-30 30.4	1.572	2.554	6.5	18.2
5 11	14 49.31	-25 19.1	1.827	2.829	3.3	20.0	5 11	14 48.25	-30 50.4	1.531	2.523	5.6	18.1
5 21	14 40.43	-24 35.3	1.843	2.827	6.0	20.2	5 21	14 36.79	-30 53.7	1.517	2.492	8.0	18.1
5 31	14 32.98	-23 48.3	1.886	2.824	9.5	20.4	5 31	14 26.73	-30 43.8	1.527	2.462	11.7	18.3
6 10	14 27.65	-23 3.8	1.951	2.821	12.8	20.6	6 10	14 19.21	-30 27.2	1.560	2.431	15.4	18.4
303999	2006 <i>BQ</i> ₂₁₁		5 6.3 350°11	4.1/11.7	18		381536	2008 <i>SG</i> ₂₉₉		5 6.3 168°39	0.3/ 6.1	18	
4 1	15 13.41	-37 29.3	4.314	5.041	8.4	20.6	4 1	15 21.56	-15 40.7	2.127	2.957	12.7	20.6
4 11	15 9.04	-37 52.3	4.218	5.040	7.1	20.5	4 11	15 15.82	-15 47.2	2.046	2.959	9.6	20.4
4 21	15 3.51	-38 5.2	4.146	5.039	5.8	20.4	4 21	15 8.03	-15 48.7	1.989	2.961	6.0	20.2
5 1	14 57.21	-38 7.2	4.099	5.039	4.6	20.3	5 1	14 58.86	-15 46.1	1.959	2.963	2.1	20.0
5 11	14 50.62	-37 58.5	4.080	5.038	4.1	20.2	5 11	14 49.19	-15 41.5	1.958	2.964	2.0	20.0
5 21	14 44.24	-37 40.1	4.089	5.038	4.5	20.3	5 21	14 39.96	-15 37.3	1.985	2.965	5.9	20.2
5 31	14 38.53	-37 14.3	4.126	5.037	5.6	20.3	5 31	14 32.05	-15 36.3	2.039	2.966	9.6	20.4
6 10	14 33.88	-36 43.6	4.188	5.037	7.0	20.4	6 10	14 26.07	-15 41.0	2.117	2.967	12.7	20.6
499281	2009 <i>VS</i> ₇₅		5 6.3 229°84	0.9/ 6.9	18		191806	2004 <i>TG</i> ₂₄₇		5 6.3 211°15	5.6/ 1.5	18	
4 1	15 21.49	-20 32.1	2.385	3.199	12.0	22.3	4 1	15 18.05	- 1 19.3	2.307	3.147	11.5	20.4
4 11	15 15.75	-20 27.4	2.282	3.184	9.3	22.1	4 11	15 12.96	- 0 19.5	2.230	3.140	9.1	20.2
4 21	15 8.02	-20 13.9	2.203	3.169	6.0	21.9	4 21	15 6.14	+ 0 37.8	2.177	3.134	6.7	20.1
5 1	14 58.86	-19 52.1	2.151	3.153	2.5	21.6	5 1	14 58.17	+ 1 27.3	2.151	3.126	5.6	20.0
5 11	14 49.11	-19 24.1	2.129	3.136	1.8	21.5	5 11	14 49.81	+ 2 4.5	2.153	3.118	6.6	20.0
5 21	14 39.65	-18 52.8	2.136	3.118	5.5	21.8	5 21	14 41.83	+ 2 26.0	2.182	3.110	8.9	20.2
5 31	14 31.32	-18 22.1	2.171	3.099	9.0	21.9	5 31	14 34.95	+ 2 30.2	2.235	3.101	11.5	20.3
6 10	14 24.80	-17 56.0	2.230	3.080	12.2	22.1	6 10	14 29.71	+ 2 17.2	2.310	3.091	14.0	20.5
2089	Cetacea		5 6.3 193°85	7.0/ 1.3	18		425672	2010 <i>XA</i> ₈₀		5 6.3 185°78	1.1/ 5.5	17	
4 1	15 20.70	+ 2 27.2	2.093	2.928	12.7	15.7	4 1	15 22.06	-14 30.8	2.186	3.016	12.5	22.6
4 11	15 15.05	+ 3 18.4	2.023	2.926	10.2	15.5	4 11	15 16.11	-14 13.0	2.102	3.016	9.4	22.4
4 21	15 7.48	+ 4 2.9	1.976	2.924	8.0	15.4	4 21	15 8.18	-13 49.7	2.042	3.015	5.8	22.2
5 1	14 58.63	+ 4 35.3	1.956	2.921	7.0	15.3	5 1	14 58.90	-13 23.0	2.010	3.014	2.1	22.0
5 11	14 49.38	+ 4 51.1	1.963	2.918	7.9	15.3	5 11	14 49.16	-12 56.0	2.007	3.012	2.5	22.0
5 21	14 40.61	+ 4 47.7	1.996	2.914	10.2	15.5	5 21	14 39.86	-12 32.1	2.033	3.009	6.2	22.2
5 31	14 33.11	+ 4 24.7	2.053	2.909	12.7	15.6	5 31	14 31.84	-12 14.6	2.086	3.005	9.8	22.4
6 10	14 27.48	+ 3 43.7	2.131	2.905	15.2	15.8	6 10	14 25.71	-12 6.1	2.162	3.001	12.9	22.6
133441	2003 <i>SQ</i> ₂₁₃		5 6.3 249°97	1.0/ 5.5	18		82633	2001 <i>OB</i> ₁₀₈		5 6.3 218°90	3.5/ 9.3	18	
4 1	15 17.13	-15 58.3	2.053	2.893	12.8	20.0	4 1	15 18.25	-29 18.0	2.421	3.211	12.6	19.1
4 11	15 12.58	-15 24.3	1.967	2.886	9.6	19.8	4 11	15 13.33	-29 20.1	2.328	3.207	10.1	18.9
4 21	15 6.05	-14 42.5	1.904	2.879	6.0	19.6	4 21	15 6.48	-29 8.2	2.257	3.202	7.3	18.7
5 1	14 58.16	-13 55.5	1.867	2.871	2.1	19.3	5 1	14 58.32	-28 42.0	2.213	3.198	4.6	18.5
5 11	14 49.79	-13 7.6	1.858	2.863	2.5	19.3	5 11	14 49.68	-28 2.9	2.196	3.192	3.6	18.5
5 21	14 41.82	-12 23.1	1.877	2.855	6.5	19.5	5 21	14 41.44	-27 14.1	2.208	3.187	5.5	18.6
5 31	14 35.10	-11 46.5	1.922	2.847	10.2	19.7	5 31	14 34.40	-26 20.4	2.246	3.182	8.4	18.7
6 10	14 30.26	-11 21.0	1.990	2.839	13.4	19.9	6 10	14 29.17	-25 27.2	2.309	3.176	11.2	18.9
242325	2003 <i>YF</i> ₂₃		5 6.3 101°49	4.6/ 3.5	18		489679	2007 <i>VK</i> ₄₈		5 6.3 128°95	1.6/ 7.7	17	
4 1	15 20.76	- 3 23.3	2.085	2.926	12.6	20.2	4 1	15 18.78	-23 44.4	2.772	3.574	10.9	22.8
4 11	15 15.02	- 3 5.4	2.021	2.936	9.6	20.0	4 11	15 13.25	-23 36.5	2.697	3.590	8.4	22.6
4 21	15 7.40	- 2 51.0	1.981	2.946	6.7	19.8	4 21	15 6.19	-23 19.2	2.646	3.606	5.5	22.4
5 1	14 58.59	- 2 43.8	1.968	2.956	4.7	19.7	5 1	14 58.16	-22 53.1	2.624	3.621	2.7	22.3
5 11	14 49.45	- 2 46.8	1.982	2.966	5.4	19.8	5 11	14 49.87	-22 20.5	2.631	3.635	1.9	22.2
5 21	14 40.85	- 3 1.6	2.024	2.976	8.1	20.0	5 21	14 42.02	-21 44.0	2.667	3.649	4.5	22.4
5 31	14 33.57	- 3 29.1	2.092	2.985	11.0	20.2	5 31	14 35.24	-21 7.3	2.731	3.662	7.3	22.6
6 10	14 28.14	- 4 8.4	2.181	2.994	13.7	20.4	6 10	14 29.99	-20 33.8	2.821	3.675	9.8	22.8
306643	2000 <i>SU</i> ₄₈		5 6.3 147°35	3.2/ 8.4	18		425864	2011 <i>FM</i> ₂		5 6.3 78°98	0.8/ 5.7	17	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
272759	2005 YM ₁₅₁		5 6.3 234°93	1°3/ 5.3 18			59759	1999 MR		5 6.3 297°27	1°8/ 5.2 18		
4 1	15 20.06	-14 12.2	2.268	3.100	12.0	21.7	4 1	15 18.52	-13 18.4	1.701	2.552	14.4	19.3
4 11	15 14.68	-13 49.9	2.170	3.086	9.0	21.4	4 11	15 14.22	-13 0.2	1.605	2.530	11.0	19.0
4 21	15 7.35	-13 22.0	2.097	3.071	5.7	21.2	4 21	15 7.43	-12 36.1	1.531	2.508	6.9	18.7
5 1	14 58.65	-12 50.8	2.051	3.055	2.1	20.9	5 1	14 58.79	-12 9.0	1.482	2.486	2.7	18.4
5 11	14 49.38	-12 19.4	2.035	3.038	2.6	20.9	5 11	14 49.31	-11 42.7	1.460	2.464	3.4	18.4
5 21	14 40.42	-11 51.3	2.046	3.021	6.3	21.1	5 21	14 40.13	-11 21.8	1.463	2.442	7.9	18.6
5 31	14 32.60	-11 30.0	2.085	3.004	9.8	21.3	5 31	14 32.37	-11 10.5	1.491	2.420	12.3	18.8
6 10	14 26.56	-11 18.2	2.147	2.985	13.0	21.5	6 10	14 26.89	-11 11.7	1.540	2.398	16.2	19.0
191781	2004 TS ₉₉		5 6.3 260°75	0°5/ 5.9 17			341186	2007 RC ₄₃		5 6.3 69°89	1°9/ 4.7 18		
4 1	15 19.28	-16 30.8	1.968	2.805	13.3	21.0	4 1	15 15.89	-14 45.7	1.967	2.814	13.0	20.4
4 11	15 14.41	-16 15.7	1.874	2.791	10.1	20.7	4 11	15 11.60	-13 47.8	1.895	2.818	9.7	20.2
4 21	15 7.33	-15 52.9	1.802	2.776	6.4	20.5	4 21	15 5.40	-12 42.0	1.846	2.823	6.0	20.0
5 1	14 58.67	-15 24.4	1.757	2.761	2.2	20.2	5 1	14 57.96	-11 32.8	1.824	2.827	2.5	19.7
5 11	14 49.36	-14 53.2	1.740	2.746	2.3	20.2	5 11	14 50.16	-10 25.5	1.830	2.832	3.3	19.8
5 21	14 40.39	-14 23.4	1.750	2.730	6.6	20.4	5 21	14 42.89	-9 25.6	1.863	2.836	6.9	20.0
5 31	14 32.73	-13 59.1	1.786	2.715	10.6	20.6	5 31	14 36.92	-8 37.6	1.922	2.841	10.5	20.3
6 10	14 27.11	-13 44.0	1.844	2.699	14.1	20.8	6 10	14 32.81	-8 4.3	2.003	2.846	13.6	20.5
395220	2010 KK ₁₁₀		5 6.3 229°79	2°0/ 4.3 18			415914	2001 UO ₈₄		5 6.3 104°58	1°1/ 5.4 18		
4 1	15 15.18	-11 16.5	2.797	3.633	9.9	21.5	4 1	15 19.98	-17 21.9	1.998	2.832	13.3	21.3
4 11	15 10.61	-10 41.7	2.706	3.624	7.4	21.3	4 11	15 14.41	-16 20.6	1.938	2.854	9.9	21.2
4 21	15 4.61	-10 3.7	2.641	3.614	4.7	21.1	4 21	15 7.03	-15 10.1	1.902	2.876	6.1	21.0
5 1	14 57.65	-9 25.1	2.604	3.604	2.3	20.9	5 1	14 58.50	-13 54.4	1.893	2.897	2.1	20.7
5 11	14 50.34	-8 49.1	2.596	3.594	2.9	21.0	5 11	14 49.76	-12 39.2	1.913	2.917	2.6	20.8
5 21	14 43.32	-8 18.6	2.617	3.583	5.6	21.1	5 21	14 41.71	-11 30.1	1.961	2.937	6.4	21.1
5 31	14 37.17	-7 56.2	2.665	3.572	8.4	21.3	5 31	14 35.09	-10 31.9	2.036	2.956	10.0	21.3
6 10	14 32.36	-7 43.6	2.737	3.561	10.9	21.4	6 10	14 30.42	-9 47.9	2.134	2.975	13.0	21.6
503981	2004 TS ₉₀		5 6.3 288°75	3°4/ 7.8 17			121483	Griffinjayne		5 6.3 253°77	2°3/ 4.4 18		
4 1	15 21.97	-23 39.1	1.393	2.231	17.8	21.5	4 1	15 17.25	-9 19.6	2.724	3.559	10.1	20.4
4 11	15 17.63	-24 6.2	1.300	2.212	14.1	21.2	4 11	15 12.25	-9 1.7	2.626	3.542	7.6	20.2
4 21	15 10.00	-24 19.6	1.228	2.194	9.7	20.9	4 21	15 5.71	-8 42.4	2.554	3.525	4.9	20.0
5 1	14 59.78	-24 17.2	1.178	2.175	5.1	20.6	5 1	14 58.09	-8 24.2	2.509	3.508	2.6	19.8
5 11	14 48.31	-23 59.5	1.152	2.156	3.9	20.4	5 11	14 50.04	-8 9.5	2.494	3.491	3.2	19.8
5 21	14 37.19	-23 30.0	1.151	2.138	8.2	20.6	5 21	14 42.22	-8 0.7	2.508	3.473	5.9	20.0
5 31	14 28.00	-22 55.7	1.173	2.119	13.3	20.9	5 31	14 35.29	-7 59.9	2.549	3.455	8.8	20.1
6 10	14 21.89	-22 24.4	1.216	2.101	17.9	21.1	6 10	14 29.77	-8 8.3	2.614	3.436	11.4	20.3
168796	2000 SC ₇₆		5 6.3 171°24	0°0/ 6.2 16			62173	2000 SW ₃₄		5 6.3 113°35	1°3/ 5.2 18		
4 1	15 23.80	-17 25.9	1.728	2.563	15.0	20.7	4 1	15 16.18	-14 24.5	2.309	3.147	11.6	19.5
4 11	15 17.96	-17 26.1	1.651	2.566	11.4	20.4	4 11	15 11.59	-13 54.9	2.233	3.151	8.7	19.3
4 21	15 9.59	-17 18.2	1.596	2.568	7.2	20.2	4 21	15 5.31	-13 20.0	2.181	3.155	5.4	19.1
5 1	14 59.46	-17 3.4	1.566	2.570	2.6	19.9	5 1	14 57.93	-12 42.4	2.156	3.159	2.0	18.9
5 11	14 48.73	-16 44.4	1.564	2.571	2.2	19.9	5 11	14 50.22	-12 5.5	2.160	3.163	2.5	18.9
5 21	14 38.57	-16 24.8	1.589	2.572	6.9	20.2	5 21	14 42.93	-11 33.0	2.192	3.167	5.9	19.2
5 31	14 30.07	-16 9.1	1.640	2.572	11.2	20.4	5 31	14 36.75	-11 7.9	2.250	3.171	9.1	19.4
6 10	14 23.99	-16 1.1	1.713	2.572	14.8	20.6	6 10	14 32.22	-10 52.6	2.332	3.175	11.9	19.6
516375	2017 FR ₁₀₀		5 6.3 179°83	2°6/ 10.4 18			70148	1999 NT ₂₆		5 6.3 240°96	1°6/ 5.2 18		
4 1	15 11.23	-32 30.7	5.050	5.804	7.0	21.7	4 1	15 21.07	-14 33.7	1.873	2.713	13.8	20.5
4 11	15 7.20	-32 39.0	4.955	5.804	5.7	21.5	4 11	15 15.86	-13 59.2	1.779	2.698	10.5	20.3
4 21	15 2.29	-32 39.8	4.883	5.804	4.3	21.4	4 21	15 8.31	-13 16.9	1.707	2.682	6.6	20.0
5 1	14 56.80	-32 32.8	4.839	5.804	3.1	21.4	5 1	14 59.08	-12 29.7	1.662	2.665	2.5	19.7
5 11	14 51.12	-32 18.7	4.824	5.804	2.6	21.3	5 11	14 49.15	-11 42.1	1.645	2.648	3.2	19.7
5 21	14 45.61	-31 58.7	4.838	5.804	3.2	21.4	5 21	14 39.59	-10 59.2	1.655	2.630	7.4	19.9
5 31	14 40.62	-31 34.2	4.880	5.804	4.5	21.5	5 31	14 31.42	-10 25.8	1.691	2.612	11.6	20.1
6 10	14 36.47	-31 7.6	4.949	5.804	5.9	21.6	6 10	14 25.40	-10 5.5	1.748	2.593	15.2	20.3
312780	2010 VR ₃₄		5 6.3 253°07	3°5/ 9.4 18			501950	2014 YN ₄		5 6.3 142°86	12°6/ 25.1 17		
4 1	15 18.16	-29 49.1	2.801	3.582	11.3	21.8	4 1	15 21.42	+21 44.7	2.152	2.927	14.5	21.2
4 11	15 13.13	-29 55.1	2.692	3.564	9.1	21.6	4 11	15 15.49	+23 10.2	2.118	2.936	13.3	21.1
4 21	15 6.34	-29 48.8	2.605	3.545	6.7	21.4	4 21	15 7.69	+24 14.8	2.104	2.945	12.7	21.1
5 1	14 58.31	-29 29.5	2.545	3.526	4.4	21.3	5 1	14 58.74	+24 51.8	2.113	2.953	12.8	21.1
5 11	14 49.75	-28 58.0	2.513	3.507	3.5	21.2	5 11	14 49.56	+24 57.4	2.143	2.961	13.5	21.2
5 21	14 41.44	-28 16.7	2.510	3.487	5.1	21.2	5 21	14 41.04	+24 31.5	2.193	2.969	14.7	21.3
5 31	14 34.13	-27 29.4	2.535	3.467	7.7	21.4	5 31	14 33.92	+23 36.5	2.263	2.975	16.0	21.4
6 10	14 28.41	-26 41.0	2.585	3.447	10.3	21.5	6 10	14 28.73	+22 17.5	2.348	2.982	17.2	21.5
355588	2008 CL ₁₃₃		5 6.3 276°51	6°0/ 30.7 18			281033	2006 HF ₉		5 6.3 12°46	0°3/ 6.1 17		
4 1	15 14.46	-0 12.2	2.301	3.147	11.3	21.0	4 1	15 16.18	-18 27.3	1.653	2.501	14.9	20.6
4 11	15 10.29	+0 56.7	2.228	3.140	9.0	20.8	4 11	15 12.27	-17 52.9	1.580	2.503	11.3	20.4
4 21	15 4.50	+2 2.3	2.179	3.134	6.9	20.7	4 21	15 6.03	-17 7.2	1.529	2.505	7.0	20.1
5 1	14 57.63	+2 59.2	2.157	3.127	6.0	20.6	5 1	14 58.24	-16 13.2	1.503	2.507	2.4	19.8
5 11	14 50.41	+3 42.6	2.162	3.120	7.0	20.7	5 11	14 49.96	-15 16.1	1.503	2.510	2.4	19.8
5 21	14 43.55	+4 8.9	2.192	3.113	9.2	20.8	5 21	14 42.27	-14 21.7	1.529	2.513	7.0	20.1
5 31	14 37.73	+4 16.7	2.247	3.106	11.7	20.9	5 31	14 36.13	-13 35.7	1.580	2.516	11.2	20.4
6 10	14 33.46	+4 6.1	2.322	3.100	14.0	21.1	6 10	14 32.22	-13 2.5	1.653	2.520	14.8	20.6
54643	2000 SP ₂₈₃		5 6.3 359°35	3°0/ 10.2 18			169854	2002 RB ₃₉		5 6.3 288°84	3°0/ 4.1 18		
4 1	15 11.84	-31 48.0	4.032	4.797	8.4	19.2	4 1						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
87704	2000 SG ₂₃		5 6.3 168°68	0.4/ 5.8	18		374337	2005 TV ₁₉₀		5 6.3 92°08	1.1/ 6.2	17	
4 1	15 12.21	-15 50.5	4.210	5.031	7.1	21.0	4 1	15 43.06	-7 30.4	1.057	1.899	21.9	20.3
4 11	15 7.94	-15 32.1	4.125	5.034	5.3	20.8	4 11	15 34.18	-9 15.0	0.990	1.907	16.8	20.0
4 21	15 2.77	-15 10.3	4.066	5.038	3.3	20.7	4 21	15 20.66	-11 11.8	0.943	1.916	10.7	19.7
5 1	14 57.02	-14 46.4	4.037	5.041	1.1	20.5	5 1	15 3.64	-13 16.6	0.920	1.924	3.9	19.3
5 11	14 51.08	-14 21.9	4.038	5.043	1.2	20.5	5 11	14 45.20	-15 22.3	0.925	1.932	3.6	19.3
5 21	14 45.36	-13 58.5	4.069	5.046	3.4	20.7	5 21	14 27.81	-17 21.7	0.958	1.940	10.3	19.7
5 31	14 40.22	-13 38.0	4.130	5.048	5.4	20.8	5 31	14 13.62	-19 11.8	1.015	1.947	16.3	20.1
6 10	14 35.97	-13 21.9	4.216	5.050	7.2	21.0	6 10	14 3.84	-20 53.6	1.092	1.955	21.1	20.4
127874	2003 GP ₁		5 6.3 275°77	2.7/ 4.6	17		304490	2006 UJ ₁₁₈		5 6.3 243°58	0.7/ 5.7	16	
4 1	15 19.14	-13 42.3	1.462	2.320	16.0	19.2	4 1	15 16.56	-16 20.1	2.382	3.215	11.4	21.9
4 11	15 14.97	-12 52.5	1.375	2.304	12.1	18.9	4 11	15 11.95	-15 54.3	2.291	3.207	8.6	21.7
4 21	15 8.03	-11 52.8	1.309	2.287	7.7	18.6	4 21	15 5.62	-15 21.8	2.225	3.198	5.4	21.5
5 1	14 59.05	-10 47.7	1.268	2.271	3.3	18.3	5 1	14 58.10	-14 44.6	2.185	3.189	1.9	21.2
5 11	14 49.22	-9 44.3	1.252	2.254	4.4	18.3	5 11	14 50.15	-14 6.0	2.175	3.180	2.1	21.2
5 21	14 39.85	-8 49.6	1.262	2.237	9.2	18.6	5 21	14 42.53	-13 29.4	2.192	3.171	5.6	21.5
5 31	14 32.18	-8 10.2	1.295	2.221	14.0	18.8	5 31	14 35.98	-12 58.5	2.237	3.161	9.0	21.7
6 10	14 27.10	-7 49.8	1.347	2.204	18.2	19.0	6 10	14 31.06	-12 36.2	2.305	3.152	11.9	21.8
371258	2006 BT ₂₂₄		5 6.3 107°09	1.5/ 5.1	15		120488	1993 FZ ₁₆		5 6.3 63°61	6.1/ 1.6	17	
4 1	15 20.44	-14 17.8	2.194	3.027	12.3	22.5	4 1	15 16.42	-4 54.0	1.693	2.553	14.1	20.0
4 11	15 14.66	-13 40.3	2.135	3.051	9.1	22.4	4 11	15 12.12	-3 22.5	1.641	2.565	10.8	19.8
4 21	15 7.14	-12 57.4	2.101	3.075	5.6	22.2	4 21	15 5.77	-1 51.6	1.611	2.578	7.7	19.6
5 1	14 58.56	-12 12.2	2.095	3.098	2.2	22.0	5 1	14 58.12	-0 29.0	1.607	2.591	6.1	19.6
5 11	14 49.77	-11 28.8	2.117	3.120	2.7	22.1	5 11	14 50.19	+0 38.1	1.630	2.605	7.4	19.7
5 21	14 41.60	-10 50.9	2.168	3.141	6.1	22.3	5 21	14 42.92	+1 24.7	1.678	2.618	10.3	19.9
5 31	14 34.74	-10 21.8	2.246	3.162	9.3	22.6	5 31	14 37.12	+1 48.4	1.748	2.631	13.3	20.1
6 10	14 29.69	-10 3.5	2.348	3.183	12.1	22.8	6 10	14 33.35	+1 49.8	1.839	2.645	16.1	20.3
140917	2001 VQ ₆₂		5 6.3 110°94	1.5/ 7.7	18		177906	2005 SO ₁₉		5 6.3 301°17	1.1/ 7.0	18	
4 1	15 16.93	-24 7.6	2.430	3.241	11.9	19.7	4 1	15 18.01	-19 57.1	2.149	2.977	12.7	20.1
4 11	15 12.11	-23 39.0	2.354	3.253	9.2	19.5	4 11	15 13.39	-20 6.9	2.052	2.962	9.8	19.9
4 21	15 5.60	-22 58.8	2.302	3.264	6.0	19.4	4 21	15 6.70	-20 8.9	1.979	2.948	6.4	19.6
5 1	14 58.04	-22 8.4	2.276	3.275	2.8	19.2	5 1	14 58.53	-20 3.2	1.932	2.933	2.7	19.4
5 11	14 50.20	-21 11.1	2.280	3.286	1.9	19.1	5 11	14 49.74	-19 51.7	1.912	2.919	2.0	19.3
5 21	14 42.85	-20 11.1	2.312	3.297	4.9	19.3	5 21	14 41.23	-19 36.8	1.920	2.905	5.7	19.5
5 31	14 36.67	-19 13.0	2.372	3.307	8.0	19.5	5 31	14 33.91	-19 22.1	1.955	2.891	9.4	19.7
6 10	14 32.15	-18 21.1	2.457	3.317	10.8	19.7	6 10	14 28.48	-19 11.3	2.013	2.877	12.7	19.9
300118	2006 UH ₃₅₉		5 6.3 240°71	2.2/ 4.2	17		71848	2000 UJ ₁₀₀		5 6.3 140°72	2.4/ 7.8	18	
4 1	15 15.37	-12 18.8	2.381	3.223	11.2	21.5	4 1	15 23.71	-24 0.7	1.774	2.592	15.4	19.9
4 11	15 11.00	-11 28.4	2.295	3.215	8.4	21.3	4 11	15 17.87	-24 1.9	1.701	2.602	12.0	19.7
4 21	15 4.98	-10 32.8	2.233	3.207	5.3	21.1	4 21	15 9.53	-23 49.3	1.649	2.611	8.0	19.4
5 1	14 57.85	-9 35.7	2.199	3.200	2.5	20.9	5 1	14 59.50	-23 22.9	1.622	2.619	4.0	19.2
5 11	14 50.34	-8 41.2	2.193	3.191	3.3	21.0	5 11	14 48.95	-22 45.4	1.623	2.627	2.8	19.1
5 21	14 43.18	-7 53.5	2.216	3.183	6.4	21.1	5 21	14 39.06	-22 1.4	1.650	2.635	6.5	19.4
5 31	14 37.06	-7 16.2	2.265	3.175	9.6	21.3	5 31	14 30.90	-21 16.8	1.704	2.642	10.4	19.6
6 10	14 32.50	-6 51.6	2.337	3.166	12.4	21.5	6 10	14 25.16	-20 37.5	1.781	2.648	14.0	19.9
62985	2000 VX ₆₀		5 6.3 341°29	0.2/ 6.1	18		128903	2004 TV ₂₀		5 6.3 296°35	1.5/ 7.2	17	
4 1	15 14.97	-18 14.8	2.053	2.893	12.8	19.2	4 1	15 18.91	-21 8.1	1.710	2.546	15.1	20.2
4 11	15 10.99	-17 44.0	1.971	2.889	9.6	19.0	4 11	15 14.66	-21 9.9	1.611	2.525	11.7	20.0
4 21	15 5.10	-17 3.9	1.911	2.885	6.0	18.8	4 21	15 7.81	-21 0.3	1.534	2.504	7.7	19.7
5 1	14 57.92	-16 16.9	1.878	2.882	2.1	18.5	5 1	14 59.00	-20 39.3	1.482	2.483	3.3	19.4
5 11	14 50.29	-15 27.1	1.873	2.879	2.0	18.5	5 11	14 49.30	-20 9.3	1.456	2.463	2.4	19.2
5 21	14 43.10	-14 38.9	1.894	2.876	6.0	18.8	5 21	14 39.91	-19 34.3	1.456	2.442	6.9	19.5
5 31	14 37.14	-13 56.9	1.942	2.874	9.7	19.0	5 31	14 32.00	-18 59.9	1.480	2.421	11.4	19.7
6 10	14 33.01	-13 24.9	2.012	2.872	12.9	19.2	6 10	14 26.49	-18 31.7	1.527	2.401	15.5	19.9
105032	2000 KJ ₃₆		5 6.3 230°60	2.1/ 4.5	18		259054	2002 TN ₃₇₃		5 6.3 294°10	7.2/ 2.1	17	
4 1	15 15.60	-13 20.3	2.217	3.060	11.8	19.7	4 1	15 19.36	-2 35.1	1.506	2.365	15.5	20.4
4 11	15 11.26	-12 27.7	2.135	3.056	8.8	19.5	4 11	15 15.12	-1 36.9	1.416	2.339	12.3	20.1
4 21	15 5.17	-11 29.0	2.078	3.053	5.5	19.3	4 21	15 8.15	-0 40.0	1.347	2.313	9.0	19.9
5 1	14 57.92	-10 28.0	2.048	3.050	2.5	19.0	5 1	14 59.14	+0 8.1	1.303	2.287	7.2	19.7
5 11	14 50.29	-9 29.2	2.046	3.046	3.3	19.1	5 11	14 49.18	+0 39.9	1.283	2.260	8.5	19.7
5 21	14 43.07	-8 37.3	2.073	3.043	6.6	19.3	5 21	14 39.52	+0 49.8	1.287	2.234	12.1	19.8
5 31	14 36.98	-7 56.1	2.125	3.039	9.9	19.5	5 31	14 31.42	+0 34.8	1.312	2.208	16.1	20.0
6 10	14 32.57	-7 28.3	2.200	3.035	12.8	19.7	6 10	14 25.79	-0 4.6	1.357	2.182	19.8	20.1
291390	2006 CG ₄₃		5 6.3 147°26	0.9/ 4.9	18		497865	2006 UJ ₁₆₃		5 6.3 241°31	0.6/ 5.9	17	
4 1	15 8.73	-13 16.7	4.521	5.351	6.5	21.1	4 1	15 21.63	-15 45.0	1.717	2.558	14.8	22.2
4 11	15 5.34	-12 49.1	4.437	5.352	4.8	21.0	4 11	15 16.46	-15 39.1	1.632	2.552	11.2	22.0
4 21	15 1.15	-12 19.2	4.379	5.353	3.0	20.9	4 21	15 8.77	-15 26.3	1.570	2.544	7.0	21.7
5 1	14 56.46	-11 48.3	4.351	5.353	1.2	20.7	5 1	14 59.29	-15 8.2	1.533	2.537	2.5	21.4
5 11	14 51.62	-11 18.3	4.353	5.354	1.5	20.7	5 11	14 49.10	-14 48.1	1.523	2.529	2.5	21.4
5 21	14 46.95	-10 50.9	4.384	5.355	3.4	20.9	5 21	14 39.38	-14 29.7	1.540	2.521	7.2	21.7
5 31	14 42.79	-10 27.5	4.444	5.356	5.2	21.0	5 31	14 31.22	-14 17.2	1.582	2.513	11.5	21.9
6 10	14 39.40	-10 9.4	4.529	5.356	6.8	21.1	6 10	14 25.40	-14 14.1	1.646	2.505	15.3	22.1
159780	2003 MV ₆		5 6.3 242°54	5.0/ 1.3	18		504772	2009 WG ₂₁₂		5 6.3 215°92	2.0/ 7.6		

EPHEMERIDES

5 6.3

5 6.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
396270	2014 <i>CJ</i> ₁₈		5 6.3 31°62	3.4/ 8.5	17		377222	2003 <i>YD</i> ₁₁₇		5 6.3 248°02	4.2/13.0	18	
4 1	15 19.38	-26 9.3	2.057	2.866	13.8	20.4	4 1	15 12.76	-40 58.8	4.649	5.350	8.2	20.5
4 11	15 14.46	-26 34.4	1.977	2.870	11.0	20.3	4 11	15 8.55	-41 8.2	4.547	5.345	7.0	20.4
4 21	15 7.36	-26 47.4	1.920	2.874	7.7	20.1	4 21	15 3.26	-41 6.7	4.467	5.340	5.9	20.4
5 1	14 58.75	-26 47.1	1.888	2.878	4.6	19.9	5 1	14 57.25	-40 53.6	4.412	5.334	4.8	20.3
5 11	14 49.61	-26 34.6	1.883	2.883	3.5	19.8	5 11	14 50.99	-40 29.2	4.385	5.329	4.3	20.2
5 21	14 40.93	-26 12.7	1.905	2.887	6.0	20.0	5 21	14 44.96	-39 54.9	4.385	5.323	4.5	20.2
5 31	14 33.65	-25 45.8	1.954	2.892	9.3	20.2	5 31	14 39.59	-39 12.8	4.412	5.318	5.4	20.3
6 10	14 28.44	-25 18.9	2.025	2.897	12.3	20.4	6 10	14 35.25	-38 25.7	4.466	5.312	6.6	20.4
378276	2007 <i>EO</i> ₆₉		5 6.3 32°04	0.2/ 6.1	17		73291	2002 <i>JG</i> ₆₅		5 6.3 5°69	3.2/ 4.9	18	
4 1	15 19.48	-16 52.7	1.624	2.471	15.2	21.1	4 1	15 21.15	-10 2.7	1.334	2.197	16.9	18.5
4 11	15 14.82	-16 45.7	1.553	2.474	11.5	20.8	4 11	15 16.50	-9 52.0	1.266	2.196	12.8	18.3
4 21	15 7.69	-16 30.5	1.503	2.478	7.2	20.6	4 21	15 8.96	-9 39.5	1.219	2.197	8.2	18.0
5 1	14 58.88	-16 9.0	1.477	2.482	2.5	20.3	5 1	14 59.38	-9 28.9	1.196	2.197	3.9	17.8
5 11	14 49.51	-15 44.6	1.479	2.486	2.4	20.3	5 11	14 49.11	-9 24.5	1.197	2.198	4.6	17.8
5 21	14 40.75	-15 21.6	1.506	2.490	7.1	20.6	5 21	14 39.52	-9 30.0	1.223	2.200	9.2	18.1
5 31	14 33.63	-15 4.5	1.558	2.494	11.3	20.8	5 31	14 31.86	-9 48.0	1.272	2.202	13.8	18.3
6 10	14 28.87	-14 56.6	1.631	2.499	15.0	21.1	6 10	14 26.97	-10 19.4	1.340	2.204	17.8	18.6
4062	Schiaparelli		5 6.3 174°80	4.1/ 8.7	18		329114	2011 <i>CM</i> ₁₉		5 6.3 199°69	2.9/ 4.3	17	
4 1	15 25.41	-27 43.1	1.767	2.571	16.0	17.7	4 1	15 19.36	-11 1.7	1.902	2.748	13.4	21.5
4 11	15 19.40	-28 1.4	1.685	2.574	12.8	17.4	4 11	15 14.36	-10 18.2	1.824	2.746	10.1	21.2
4 21	15 10.64	-28 3.7	1.625	2.576	9.1	17.2	4 21	15 7.25	-9 30.2	1.769	2.743	6.4	21.0
5 1	14 59.95	-27 48.3	1.589	2.578	5.5	17.0	5 1	14 58.72	-8 41.9	1.741	2.740	3.2	20.8
5 11	14 48.55	-27 16.2	1.580	2.578	4.2	16.9	5 11	14 49.71	-7 58.2	1.740	2.737	4.2	20.9
5 21	14 37.76	-26 31.5	1.597	2.579	7.0	17.1	5 21	14 41.18	-7 23.6	1.766	2.734	7.7	21.1
5 31	14 28.76	-25 41.0	1.641	2.578	10.8	17.3	5 31	14 34.02	-7 1.8	1.818	2.730	11.4	21.3
6 10	14 22.38	-24 51.8	1.707	2.577	14.3	17.5	6 10	14 28.87	-6 54.5	1.891	2.726	14.6	21.5
379307	2009 <i>VB</i> ₈₈		5 6.3 206°67	1.2/ 7.2	17		475849	2007 <i>BC</i> ₅₅		5 6.3 266°73	5.5/11.3	18	
4 1	15 20.60	-21 51.3	2.377	3.190	12.1	22.7	4 1	15 18.82	-36 12.8	2.565	3.319	12.9	21.3
4 11	15 15.06	-21 39.9	2.283	3.184	9.3	22.5	4 11	15 13.95	-36 25.2	2.458	3.302	10.9	21.1
4 21	15 7.60	-21 18.4	2.213	3.177	6.1	22.3	4 21	15 7.04	-36 21.0	2.372	3.285	8.6	20.9
5 1	14 58.82	-20 47.6	2.169	3.170	2.6	22.1	5 1	14 58.67	-35 58.2	2.310	3.268	6.5	20.8
5 11	14 49.55	-20 9.9	2.155	3.162	1.9	22.0	5 11	14 49.72	-35 17.0	2.275	3.250	5.5	20.7
5 21	14 40.65	-19 28.7	2.170	3.153	5.3	22.2	5 21	14 41.09	-34 20.1	2.268	3.233	6.5	20.7
5 31	14 32.92	-18 48.3	2.213	3.143	8.7	22.4	5 31	14 33.66	-33 12.2	2.287	3.215	8.7	20.8
6 10	14 26.98	-18 12.9	2.279	3.133	11.8	22.6	6 10	14 28.12	-31 59.6	2.332	3.197	11.1	21.0
63106	2000 <i>WE</i> ₁₅₂		5 6.3 179°06	5.4/ 1.5	17		275962	Chalverat		5 6.3 167°20	1.7/ 7.7	17	
4 1	15 19.02	+ 0 15.3	2.578	3.409	10.7	20.5	4 1	15 20.71	-23 55.6	2.306	3.114	12.6	22.0
4 11	15 13.49	+ 1 7.9	2.507	3.411	8.5	20.3	4 11	15 15.11	-23 38.7	2.223	3.119	9.7	21.8
4 21	15 6.42	+ 1 56.5	2.461	3.412	6.4	20.2	4 21	15 7.60	-23 9.9	2.163	3.124	6.5	21.6
5 1	14 58.36	+ 2 36.7	2.443	3.413	5.4	20.1	5 1	14 58.82	-22 30.1	2.130	3.128	3.1	21.4
5 11	14 50.00	+ 3 4.8	2.454	3.413	6.3	20.2	5 11	14 49.64	-21 41.9	2.125	3.131	2.1	21.4
5 21	14 42.03	+ 3 18.3	2.492	3.412	8.3	20.3	5 21	14 40.95	-20 49.5	2.150	3.133	5.3	21.6
5 31	14 35.08	+ 3 16.1	2.555	3.411	10.6	20.5	5 31	14 33.53	-19 57.7	2.202	3.135	8.7	21.8
6 10	14 29.64	+ 2 58.5	2.641	3.408	12.7	20.6	6 10	14 27.98	-19 11.2	2.279	3.137	11.7	22.0
343627	2010 <i>HY</i> ₃₁		5 6.3 295°84	1.4/ 8.3	18		250381	2003 <i>UV</i> ₇₀		5 6.3 182°40	0.5/ 6.7	16	
4 1	15 10.05	-25 23.2	4.185	4.981	7.6	20.0	4 1	15 21.99	-20 6.6	1.988	2.812	13.7	21.5
4 11	15 6.47	-25 4.8	4.084	4.972	5.9	19.9	4 11	15 16.35	-19 45.9	1.904	2.813	10.5	21.3
4 21	15 1.93	-24 39.0	4.007	4.963	4.0	19.8	4 21	15 8.51	-19 14.5	1.844	2.813	6.7	21.1
5 1	14 56.77	-24 6.7	3.959	4.953	2.1	19.6	5 1	14 59.17	-18 33.9	1.811	2.813	2.5	20.8
5 11	14 51.39	-23 29.2	3.941	4.944	1.5	19.5	5 11	14 49.32	-17 47.6	1.805	2.812	2.0	20.8
5 21	14 46.21	-22 48.6	3.952	4.935	3.1	19.7	5 21	14 39.99	-17 0.0	1.828	2.811	6.1	21.0
5 31	14 41.62	-22 7.2	3.991	4.925	5.1	19.8	5 31	14 32.10	-16 16.4	1.878	2.808	10.1	21.3
6 10	14 37.93	-21 27.4	4.058	4.916	7.0	19.9	6 10	14 26.32	-15 41.2	1.950	2.805	13.4	21.5
499572	2010 <i>SE</i> ₃₀		5 6.3 232°01	0.0/ 6.1	17		343033	2009 <i>BM</i> ₁₃₆		5 6.3 166°23	0.6/ 5.8	17	
4 1	15 21.99	-18 29.7	1.972	2.800	13.7	22.5	4 1	15 17.74	-16 27.1	2.453	3.282	11.3	21.5
4 11	15 16.52	-18 12.1	1.875	2.787	10.4	22.3	4 11	15 12.71	-16 1.0	2.372	3.286	8.5	21.3
4 21	15 8.73	-17 44.9	1.802	2.773	6.6	22.0	4 21	15 6.03	-15 28.5	2.316	3.289	5.3	21.1
5 1	14 59.28	-17 9.6	1.755	2.758	2.4	21.7	5 1	14 58.26	-14 51.7	2.288	3.292	1.8	20.9
5 11	14 49.14	-16 29.3	1.736	2.743	2.1	21.6	5 11	14 50.15	-14 13.7	2.289	3.294	2.0	20.9
5 21	14 39.36	-15 48.3	1.745	2.727	6.5	21.9	5 21	14 42.44	-13 37.8	2.318	3.296	5.4	21.2
5 31	14 30.95	-15 11.6	1.781	2.710	10.6	22.1	5 31	14 35.82	-13 7.5	2.375	3.298	8.6	21.4
6 10	14 24.67	-14 43.6	1.839	2.692	14.2	22.3	6 10	14 30.80	-12 45.5	2.456	3.299	11.4	21.5
265647	2005 <i>TH</i> ₉₈		5 6.3 339°04	0.4/ 6.1	17		429310	2010 <i>DW</i> ₉₁		5 6.3 123°09	3.1/ 4.1	17	
4 1	15 18.42	-16 33.0	1.455	2.310	16.2	20.5	4 1	15 18.59	- 9 29.4	1.986	2.832	12.9	20.7
4 11	15 14.40	-16 27.9	1.378	2.304	12.3	20.2	4 11	15 13.62	- 8 54.0	1.916	2.838	9.7	20.5
4 21	15 7.64	-16 14.2	1.321	2.298	7.8	20.0	4 21	15 6.70	- 8 16.4	1.870	2.843	6.2	20.3
5 1	14 58.93	-15 53.8	1.289	2.293	2.7	19.6	5 1	14 58.51	- 7 40.5	1.850	2.849	3.4	20.1
5 11	14 49.46	-15 30.6	1.281	2.288	2.6	19.6	5 11	14 49.93	- 7 10.5	1.858	2.854	4.2	20.2
5 21	14 40.55	-15 9.0	1.299	2.284	7.7	19.9	5 21	14 41.87	- 6 49.9	1.894	2.859	7.5	20.4
5 31	14 33.39	-14 54.0	1.340	2.280	12.5	20.2	5 31	14 35.13	- 6 41.3	1.954	2.864	10.8	20.6
6 10	14 28.82	-14 49.4	1.402	2.277	16.5	20.4	6 10	14 30.29	- 6 45.9	2.037	2.869	13.8	20.8
79610	1998 <i>RF</i> ₅₁		5 6.3 224°77	2.0/ 7.6	18		385506	2004 <i>EO</i> ₁₁₂		5 6.3 0°01	1.5/ 5.5	17	
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
102628	1999 VG ₂₈		5 6.3 260°35	0°6/ 6.7 18			428762	2008 SW ₁₂₁		5 6.3 69°70	2°1/ 7.6 17		
4 1	15 19.49	-20 55.6	1.686	2.522	15.2	19.8	4 1	15 20.80	-22 26.4	1.858	2.683	14.5	20.8
4 11	15 14.99	-20 24.4	1.594	2.509	11.7	19.5	4 11	15 15.61	-22 40.9	1.786	2.692	11.2	20.6
4 21	15 7.94	-19 38.8	1.523	2.495	7.5	19.2	4 21	15 8.11	-22 44.5	1.736	2.701	7.4	20.4
5 1	14 59.05	-18 40.5	1.478	2.481	2.9	18.9	5 1	14 59.06	-22 37.0	1.711	2.710	3.6	20.2
5 11	14 49.42	-17 34.1	1.459	2.466	2.2	18.8	5 11	14 49.50	-22 20.3	1.714	2.719	2.6	20.1
5 21	14 40.24	-16 25.9	1.467	2.452	7.1	19.1	5 21	14 40.52	-21 57.8	1.743	2.728	6.1	20.4
5 31	14 32.63	-15 23.2	1.500	2.437	11.7	19.3	5 31	14 33.09	-21 34.1	1.799	2.738	9.9	20.6
6 10	14 27.41	-14 32.0	1.555	2.422	15.7	19.5	6 10	14 27.87	-21 13.8	1.877	2.747	13.2	20.8
179505	2002 CV ₁₂₂		5 6.3 25°64	8°1/28.7 17			487694	2015 PT ₃₀₈		5 6.3 316°60	19°6/15.9 18		
4 1	15 14.34	+ 5 42.4	2.171	3.011	12.2	19.5	4 1	15 29.05	-50 0.4	1.134	1.872	26.7	20.9
4 11	15 10.26	+ 7 5.8	2.115	3.013	10.1	19.4	4 11	15 25.89	-52 28.7	1.066	1.865	24.7	20.7
4 21	15 4.53	+ 8 20.9	2.082	3.016	8.5	19.3	4 21	15 16.93	-54 24.9	1.011	1.859	22.7	20.6
5 1	14 57.73	+ 9 21.3	2.076	3.018	8.2	19.3	5 1	15 2.80	-55 33.3	0.970	1.853	20.8	20.4
5 11	14 50.64	+10 1.8	2.094	3.021	9.2	19.3	5 11	14 45.92	-55 41.9	0.944	1.847	19.7	20.3
5 21	14 43.99	+10 19.7	2.137	3.024	11.0	19.4	5 21	14 29.85	-54 48.2	0.935	1.842	19.7	20.3
5 31	14 38.47	+10 14.6	2.202	3.027	13.1	19.6	5 31	14 17.95	-53 2.4	0.943	1.837	20.9	20.3
6 10	14 34.56	+ 9 48.3	2.286	3.031	15.1	19.7	6 10	14 12.08	-50 44.0	0.965	1.833	22.9	20.4
321381	2009 OJ ₂₁		5 6.3 290°10	3°1/ 4.4 17			10831	Takamagahara		5 6.3 71°59	0°5/ 6.6 18		
4 1	15 18.44	-11 43.8	1.565	2.423	15.1	20.5	4 1	15 22.23	-19 28.2	1.626	2.463	15.7	19.1
4 11	15 14.33	-11 2.6	1.474	2.403	11.5	20.3	4 11	15 16.64	-19 15.2	1.573	2.488	11.8	18.9
4 21	15 7.61	-10 14.7	1.405	2.383	7.4	20.0	4 21	15 8.66	-18 51.3	1.542	2.514	7.4	18.7
5 1	14 58.96	- 9 24.6	1.361	2.362	3.6	19.7	5 1	14 59.20	-18 18.8	1.536	2.539	2.8	18.4
5 11	14 49.48	- 8 38.1	1.343	2.342	4.6	19.7	5 11	14 49.45	-17 41.6	1.557	2.564	2.1	18.5
5 21	14 40.36	- 8 1.3	1.349	2.322	9.0	19.9	5 21	14 40.56	-17 4.6	1.604	2.589	6.6	18.8
5 31	14 32.78	- 7 39.1	1.380	2.302	13.5	20.1	5 31	14 33.47	-16 32.8	1.677	2.613	10.7	19.1
6 10	14 27.62	- 7 34.4	1.430	2.283	17.5	20.3	6 10	14 28.76	-16 10.2	1.772	2.637	14.1	19.3
149912	2005 SL ₇₃		5 6.3 186°93	0°3/ 6.6 18			477191	2009 HS ₇		5 6.3 349°46	3°4/ 3.8 17		
4 1	15 17.89	-18 10.1	2.697	3.518	10.6	20.3	4 1	15 15.47	- 8 51.2	1.996	2.849	12.6	21.0
4 11	15 12.76	-18 10.2	2.610	3.518	8.0	20.1	4 11	15 11.35	- 8 11.0	1.921	2.846	9.5	20.8
4 21	15 6.05	-18 4.4	2.548	3.517	5.1	19.9	4 21	15 5.34	- 7 28.7	1.870	2.844	6.2	20.6
5 1	14 58.28	-17 53.6	2.513	3.516	1.9	19.7	5 1	14 58.07	- 6 48.5	1.845	2.842	3.6	20.4
5 11	14 50.13	-17 39.7	2.508	3.515	1.5	19.6	5 11	14 50.38	- 6 14.9	1.847	2.840	4.5	20.5
5 21	14 42.31	-17 24.8	2.532	3.514	4.7	19.9	5 21	14 43.13	- 5 51.6	1.875	2.839	7.7	20.7
5 31	14 35.46	-17 11.6	2.584	3.512	7.8	20.0	5 31	14 37.10	- 5 41.3	1.928	2.838	11.0	20.9
6 10	14 30.10	-17 2.6	2.660	3.510	10.4	20.2	6 10	14 32.88	- 5 45.3	2.003	2.837	13.9	21.1
32846	1992 GS ₁		5 6.3 24°56	0°9/ 5.6 18			201698	2003 UX ₁₃₂		5 6.3 138°76	1°3/ 7.4 17		
4 1	15 15.64	-15 59.9	2.047	2.890	12.7	18.9	4 1	15 20.54	-22 10.3	2.763	3.567	10.8	21.9
4 11	15 11.45	-15 31.2	1.972	2.893	9.5	18.7	4 11	15 14.64	-22 8.9	2.686	3.582	8.3	21.8
4 21	15 5.37	-14 55.5	1.921	2.897	5.9	18.5	4 21	15 7.16	-21 59.0	2.634	3.596	5.4	21.6
5 1	14 58.06	-14 15.4	1.896	2.900	2.1	18.2	5 1	14 58.67	-21 41.4	2.611	3.610	2.5	21.4
5 11	14 50.35	-13 34.8	1.899	2.904	2.4	18.3	5 11	14 49.89	-21 17.9	2.617	3.622	1.7	21.4
5 21	14 43.12	-12 57.7	1.929	2.909	6.2	18.5	5 21	14 41.53	-20 50.9	2.653	3.635	4.5	21.6
5 31	14 37.14	-12 28.1	1.985	2.913	9.7	18.7	5 31	14 34.25	-20 23.7	2.717	3.646	7.4	21.8
6 10	14 32.97	-12 8.8	2.063	2.918	12.8	19.0	6 10	14 28.53	-19 59.6	2.806	3.657	9.9	22.0
125687	2001 XQ ₈₇		5 6.3 106°19	7°1/ 1.9 18			115019	2003 QS ₈₉		5 6.3 192°00	2°3/ 8.4 18		
4 1	15 21.31	+ 2 33.4	1.950	2.787	13.4	19.3	4 1	15 19.33	-26 21.8	2.564	3.360	11.8	20.4
4 11	15 15.52	+ 3 18.1	1.897	2.802	10.7	19.1	4 11	15 14.00	-26 7.2	2.471	3.358	9.3	20.2
4 21	15 7.79	+ 3 54.7	1.867	2.816	8.3	19.0	4 21	15 6.90	-25 40.3	2.402	3.356	6.4	20.0
5 1	14 58.87	+ 4 17.8	1.863	2.830	7.1	18.9	5 1	14 58.61	-25 1.5	2.360	3.353	3.5	19.8
5 11	14 49.68	+ 4 23.5	1.886	2.844	8.0	19.0	5 11	14 49.92	-24 13.0	2.347	3.350	2.5	19.7
5 21	14 41.13	+ 4 10.1	1.935	2.857	10.2	19.2	5 21	14 41.63	-23 18.2	2.363	3.346	5.0	19.9
5 31	14 33.99	+ 3 37.8	2.007	2.870	12.7	19.4	5 31	14 34.46	-22 21.9	2.407	3.341	8.0	20.1
6 10	14 28.81	+ 2 48.9	2.100	2.883	15.1	19.5	6 10	14 29.00	-21 28.8	2.477	3.336	10.8	20.3
402869	2007 RY ₁₉₄		5 6.3 185°20	1°1/ 7.7 18			202586	2006 GP ₂₅		5 6.3 301°80	0°4/ 6.1 17		
4 1	15 13.50	-22 48.7	3.705	4.508	8.3	21.5	4 1	15 18.17	-17 2.5	1.895	2.735	13.6	21.0
4 11	15 9.12	-22 42.4	3.613	4.508	6.4	21.4	4 11	15 13.59	-16 45.8	1.814	2.732	10.3	20.7
4 21	15 3.63	-22 29.4	3.547	4.507	4.2	21.2	4 21	15 6.86	-16 21.1	1.756	2.730	6.5	20.5
5 1	14 57.41	-22 10.5	3.509	4.507	2.0	21.0	5 1	14 58.64	-15 50.3	1.723	2.727	2.2	20.2
5 11	14 50.94	-21 47.0	3.501	4.506	1.4	21.0	5 11	14 49.90	-15 17.1	1.718	2.725	2.2	20.2
5 21	14 44.70	-21 20.8	3.522	4.505	3.5	21.1	5 21	14 41.63	-14 45.4	1.740	2.722	6.4	20.5
5 31	14 39.15	-20 54.2	3.572	4.503	5.7	21.3	5 31	14 34.73	-14 19.6	1.787	2.720	10.4	20.7
6 10	14 34.67	-20 29.5	3.648	4.502	7.8	21.4	6 10	14 29.88	-14 3.1	1.857	2.717	13.8	20.9
389736	2011 SG ₁₁₀		5 6.3 82°22	6°1/10.6 18			219656	2001 UU ₂₁₇		5 6.3 130°85	3°6/ 3.5 17		
4 1	15 23.34	-34 20.6	2.282	3.045	14.1	20.5	4 1	15 19.53	- 8 41.5	2.101	2.943	12.4	21.7
4 11	15 17.47	-35 14.1	2.205	3.056	11.7	20.4	4 11	15 14.13	- 7 44.9	2.038	2.957	9.3	21.5
4 21	15 9.28	-35 52.2	2.149	3.066	9.2	20.2	4 21	15 6.93	- 6 46.3	2.000	2.971	6.1	21.3
5 1	14 59.49	-36 12.0	2.119	3.076	7.0	20.1	5 1	14 58.60	- 5 50.3	1.989	2.984	3.7	21.2
5 11	14 49.09	-36 12.6	2.114	3.087	6.1	20.1	5 11	14 49.99	- 5 1.7	2.006	2.996	4.7	21.3
5 21	14 39.16	-35 56.0	2.137	3.097	7.2	20.1	5 21	14 41.94	- 4 24.6	2.051	3.008	7.6	21.5
5 31	14 30.69	-35 26.6	2.186	3.107	9.3	20.3	5 31	14 35.19	- 4 1.6	2.121	3.019	10.7	21.7
6 10	14 24.41	-34 50.4	2.259	3.118	11.7	20.5	6 10	14 30.24	- 3 53.7	2.214	3.029	13.4	21.9
133349	2003 SK ₁₁₇		5 6.3 196°76	0°0/ 6.2 18			201660	2003 TW ₄₅		5 6.3 34°16	1°0/ 7.1 17		
4 1	15 18.14	-18 50.6	2.209										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
459427	2012 SG ₂₅		5 6.3 240°86	1.7/ 8.7	18		292195	2006 SE ₃₃		5 6.3 152°89	3.2/ 2.8	18	
4 1	15 11.30	-26 16.1	4.738	5.524	6.9	21.4	4 1	15 15.54	-7 45.8	2.845	3.682	9.7	22.1
4 11	15 7.33	-26 21.8	4.638	5.518	5.4	21.3	4 11	15 10.78	-6 42.2	2.774	3.690	7.3	22.0
4 21	15 2.47	-26 21.5	4.564	5.512	3.8	21.2	4 21	15 4.72	-5 37.2	2.730	3.698	4.9	21.8
5 1	14 57.02	-26 15.3	4.517	5.505	2.3	21.0	5 1	14 57.83	-4 34.5	2.714	3.705	3.3	21.7
5 11	14 51.34	-26 4.0	4.501	5.499	1.7	21.0	5 11	14 50.72	-3 38.2	2.728	3.712	4.1	21.8
5 21	14 45.82	-25 48.8	4.513	5.493	2.9	21.1	5 21	14 43.97	-2 51.4	2.771	3.718	6.3	22.0
5 31	14 40.82	-25 31.2	4.555	5.486	4.6	21.2	5 31	14 38.13	-2 16.6	2.840	3.724	8.8	22.1
6 10	14 36.64	-25 13.3	4.624	5.480	6.2	21.3	6 10	14 33.59	-1 54.9	2.933	3.730	10.9	22.3
225576	2000 UR ₇₈		5 6.3 131°31	0°0/ 6.1	18		521225	2015 GJ ₅₃		5 6.3 248°33	5°7/ 1.7	18	
4 1	15 21.67	-17 4.8	2.237	3.062	12.4	21.2	4 1	15 16.93	-1 31.6	2.172	3.017	12.0	21.6
4 11	15 15.77	-16 59.7	2.165	3.075	9.3	21.0	4 11	15 12.32	-0 36.2	2.096	3.010	9.4	21.4
4 21	15 7.99	-16 48.1	2.117	3.088	5.8	20.8	4 21	15 5.91	+0 16.2	2.043	3.002	7.0	21.3
5 1	14 58.99	-16 31.5	2.097	3.100	2.0	20.6	5 1	14 58.31	+1 0.7	2.016	2.994	5.7	21.2
5 11	14 49.64	-16 12.3	2.106	3.112	1.8	20.6	5 11	14 50.28	+1 32.4	2.017	2.986	6.7	21.2
5 21	14 40.81	-15 53.4	2.143	3.123	5.6	20.9	5 21	14 42.64	+1 48.1	2.044	2.977	9.1	21.3
5 31	14 33.26	-15 37.9	2.208	3.134	9.0	21.1	5 31	14 36.12	+1 46.1	2.096	2.969	11.8	21.5
6 10	14 27.57	-15 28.8	2.296	3.144	11.9	21.3	6 10	14 31.30	+1 26.7	2.168	2.961	14.4	21.6
439423	2013 DT ₁₃		5 6.3 176°79	5°3/30.2	18		382775	2003 SQ ₉₆		5 6.3 206°21	5°3/10.8	18	
4 1	15 14.29	+0 32.3	2.905	3.740	9.5	21.6	4 1	15 22.14	-35 10.8	2.608	3.360	12.8	22.1
4 11	15 9.85	+1 44.7	2.837	3.742	7.6	21.5	4 11	15 16.37	-35 31.0	2.509	3.354	10.7	21.9
4 21	15 4.14	+2 53.9	2.795	3.743	5.9	21.4	4 21	15 8.54	-35 35.7	2.433	3.348	8.3	21.7
5 1	14 57.62	+3 55.4	2.781	3.744	5.3	21.3	5 1	14 59.26	-35 22.9	2.381	3.341	6.2	21.6
5 11	14 50.85	+4 45.3	2.795	3.744	6.1	21.4	5 11	14 49.43	-34 52.7	2.358	3.334	5.3	21.5
5 21	14 44.40	+5 20.8	2.837	3.745	7.9	21.5	5 21	14 39.96	-34 7.5	2.362	3.326	6.3	21.6
5 31	14 38.79	+5 40.5	2.903	3.744	9.8	21.6	5 31	14 31.75	-33 11.9	2.393	3.317	8.5	21.7
6 10	14 34.42	+5 44.3	2.991	3.744	11.7	21.8	6 10	14 25.44	-32 11.8	2.449	3.308	10.9	21.8
344474	2002 PN ₁₁₃		5 6.3 230°44	2°2/ 8.7	18		351501	2005 QQ ₁₈₈		5 6.3 231°15	4°4/ 9.7	16	
4 1	15 19.02	-27 32.0	3.125	3.907	10.2	21.1	4 1	15 20.05	-31 1.3	2.530	3.307	12.5	21.4
4 11	15 13.56	-27 13.8	3.012	3.890	8.1	20.9	4 11	15 14.80	-31 28.0	2.434	3.301	10.2	21.2
4 21	15 6.56	-26 44.1	2.924	3.872	5.7	20.7	4 21	15 7.56	-31 41.9	2.361	3.295	7.6	21.0
5 1	14 58.51	-26 3.2	2.864	3.854	3.2	20.5	5 1	14 58.92	-31 41.1	2.314	3.289	5.3	20.8
5 11	14 50.05	-25 12.7	2.833	3.834	2.4	20.4	5 11	14 49.72	-31 26.1	2.294	3.282	4.4	20.8
5 21	14 41.84	-24 15.6	2.833	3.814	4.4	20.6	5 21	14 40.83	-30 58.9	2.303	3.275	5.9	20.9
5 31	14 34.54	-23 15.7	2.863	3.793	7.0	20.7	5 31	14 33.11	-30 23.4	2.338	3.268	8.4	21.0
6 10	14 28.65	-22 17.4	2.918	3.771	9.5	20.8	6 10	14 27.22	-29 44.6	2.398	3.261	11.0	21.2
358580	2007 TS ₄₅₀		5 6.3 181°88	2°3/ 4.5	18		499656	2010 VP ₉₇		5 6.3 239°48	0°2/ 6.2	17	
4 1	15 17.71	-10 38.4	2.381	3.219	11.3	21.2	4 1	15 21.31	-18 11.1	1.925	2.756	13.8	22.6
4 11	15 12.74	-10 9.6	2.302	3.220	8.5	21.0	4 11	15 16.09	-17 46.5	1.828	2.742	10.6	22.4
4 21	15 6.09	-9 38.2	2.247	3.220	5.4	20.8	4 21	15 8.54	-17 11.9	1.754	2.726	6.7	22.1
5 1	14 58.34	-9 7.1	2.220	3.220	2.6	20.7	5 1	14 59.31	-16 28.9	1.707	2.710	2.4	21.8
5 11	14 50.22	-8 39.5	2.221	3.220	3.3	20.7	5 11	14 49.38	-15 41.3	1.687	2.694	2.2	21.7
5 21	14 42.48	-8 18.6	2.251	3.219	6.3	20.9	5 21	14 39.81	-14 54.0	1.695	2.676	6.7	22.0
5 31	14 35.83	-8 6.8	2.308	3.218	9.4	21.1	5 31	14 31.62	-14 12.1	1.730	2.658	10.9	22.2
6 10	14 30.79	-8 5.6	2.387	3.216	12.1	21.3	6 10	14 25.57	-13 40.3	1.786	2.640	14.5	22.4
68879	2002 JB ₄₇		5 6.3 243°20	3°1/ 7.9	18		69763	1998 QH ₆		5 6.3 289°74	8°2/28.9	18	
4 1	15 23.69	-24 25.7	1.732	2.551	15.7	19.3	4 1	15 16.21	+1 56.5	1.889	2.739	13.3	19.3
4 11	15 18.31	-24 47.9	1.640	2.540	12.4	19.0	4 11	15 12.19	+3 31.5	1.803	2.713	10.9	19.1
4 21	15 10.15	-24 57.4	1.569	2.529	8.5	18.8	4 21	15 6.06	+5 3.8	1.739	2.687	8.9	18.9
5 1	14 59.91	-24 52.7	1.522	2.517	4.6	18.5	5 1	14 58.43	+6 25.2	1.702	2.661	8.3	18.9
5 11	14 48.77	-24 34.4	1.502	2.505	3.5	18.4	5 11	14 50.15	+7 28.1	1.689	2.635	9.6	18.9
5 21	14 38.02	-24 5.9	1.509	2.493	7.0	18.6	5 21	14 42.17	+8 6.9	1.701	2.609	12.2	19.0
5 31	14 28.93	-23 32.8	1.542	2.480	11.2	18.8	5 31	14 35.40	+8 18.9	1.735	2.582	15.1	19.1
6 10	14 22.40	-23 1.5	1.596	2.467	15.1	19.0	6 10	14 30.55	+8 4.9	1.788	2.556	17.9	19.2
163511	2002 TL ₁		5 6.3 208°04	0°2/ 6.5	18		27973	1997 TR ₂₅		5 6.3 177°19	0°7/ 6.8	18	
4 1	15 18.45	-18 29.4	2.253	3.081	12.2	20.7	4 1	15 22.02	-19 46.4	2.465	3.279	11.7	18.5
4 11	15 13.50	-18 17.3	2.167	3.078	9.3	20.5	4 11	15 16.01	-19 41.3	2.379	3.281	8.9	18.3
4 21	15 6.68	-17 57.4	2.105	3.075	5.9	20.3	4 21	15 8.17	-19 28.3	2.317	3.283	5.7	18.1
5 1	14 58.57	-17 31.0	2.069	3.072	2.1	20.1	5 1	14 59.10	-19 8.2	2.283	3.285	2.2	17.8
5 11	14 50.01	-17 1.0	2.062	3.069	1.8	20.0	5 11	14 49.61	-18 43.1	2.278	3.285	1.7	17.8
5 21	14 41.84	-16 30.5	2.083	3.065	5.5	20.3	5 21	14 40.52	-18 16.0	2.303	3.285	5.1	18.0
5 31	14 34.84	-16 3.5	2.131	3.061	9.0	20.5	5 31	14 32.60	-17 50.3	2.357	3.284	8.4	18.2
6 10	14 29.63	-15 43.1	2.202	3.057	12.1	20.7	6 10	14 26.42	-17 29.3	2.434	3.282	11.3	18.4
300974	2008 EH ₈₃		5 6.3 123°00	4°3/ 1.8	17		213900	2003 UN ₃₄		5 6.3 118°73	0°6/ 5.9	18	R
4 1	15 15.30	-4 19.8	2.658	3.499	10.2	20.9	4 1	15 19.60	-18 44.5	1.569	2.415	15.7	20.9
4 11	15 10.65	-3 10.4	2.598	3.512	7.8	20.8	4 11	15 14.96	-17 56.6	1.498	2.420	11.9	20.6
4 21	15 4.64	-2 1.9	2.563	3.525	5.5	20.6	4 21	15 7.82	-16 55.8	1.449	2.424	7.4	20.4
5 1	14 57.79	-0 58.9	2.556	3.538	4.3	20.6	5 1	14 59.02	-15 45.6	1.425	2.429	2.6	20.1
5 11	14 50.74	-0 5.4	2.578	3.550	5.2	20.6	5 11	14 49.71	-14 32.3	1.427	2.434	2.6	20.1
5 21	14 44.10	+0 35.4	2.628	3.562	7.3	20.8	5 21	14 41.10	-13 23.1	1.456	2.438	7.5	20.4
5 31	14 38.42	+1 1.5	2.704	3.574	9.6	21.0	5 31	14 34.21	-12 24.5	1.509	2.442	11.9	20.7
6 10	14 34.10	+1 12.7	2.802	3.585	11.7	21.1	6 10	14 29.73	-11 41.4	1.584	2.446	15.6	20.9
42321	2001 XE ₂₄		5 6.3 124°24	0°7/ 5.8	18		434275	2003 WR ₈₀		5 6.3 118°61	4°3/ 3.0	18	
4 1	15 21.86	-15 36.4	2.281	3.107	12.1	20.1	4 1	15 21.33	-19 1				

EPHEMERIDES

5 6.3

5 6.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
468583	2007 <i>LS</i>		5 6.3 289°35	1.2°/ 5.3	17		178690	2000 <i>SY</i> ₂₆		5 6.3 178°29	5°6'/11.7	18	
4 1	15 23.45	-15 33.1	2.601	3.418	11.1	23.3	4 1	15 21.63	-38 1.3	3.032	3.760	11.6	21.5
4 11	15 17.40	-14 53.2	2.458	3.365	8.5	23.1	4 11	15 15.77	-38 31.4	2.939	3.762	9.9	21.4
4 21	15 9.31	-14 4.7	2.341	3.311	5.4	22.8	4 21	15 8.07	-38 47.0	2.868	3.763	8.0	21.2
5 1	14 59.63	-13 9.3	2.253	3.256	2.0	22.5	5 1	14 59.11	-38 46.2	2.823	3.763	6.3	21.1
5 11	14 49.05	-12 10.2	2.195	3.199	2.5	22.4	5 11	14 49.68	-38 28.7	2.804	3.764	5.6	21.1
5 21	14 38.44	-11 11.7	2.169	3.140	6.3	22.5	5 21	14 40.58	-37 56.4	2.814	3.763	6.2	21.1
5 31	14 28.65	-10 18.6	2.171	3.080	10.0	22.7	5 31	14 32.61	-37 12.7	2.850	3.763	7.7	21.2
6 10	14 20.46	-9 35.0	2.199	3.018	13.4	22.8	6 10	14 26.35	-36 22.7	2.912	3.762	9.6	21.3
87316	2000 <i>QL</i> ₅		5 6.3 152°59	2°3'/ 7.9	18		478188	2011 <i>UW</i> ₂₄₁		5 6.3 317°67	2°1'/ 8.2	16	
4 1	15 21.58	-24 22.4	2.188	2.996	13.2	19.6	4 1	15 14.83	-26 50.3	1.982	2.800	14.0	20.6
4 11	15 15.93	-24 24.7	2.108	3.003	10.3	19.4	4 11	15 11.18	-26 1.7	1.884	2.785	11.0	20.4
4 21	15 8.22	-24 15.4	2.051	3.010	6.9	19.2	4 21	15 5.43	-24 54.3	1.808	2.770	7.5	20.1
5 1	14 59.14	-23 54.5	2.020	3.016	3.6	19.0	5 1	14 58.21	-23 29.7	1.758	2.755	3.7	19.9
5 11	14 49.61	-23 24.0	2.018	3.022	2.6	18.9	5 11	14 50.46	-21 52.3	1.735	2.741	2.4	19.8
5 21	14 40.57	-22 47.3	2.043	3.027	5.5	19.1	5 21	14 43.16	-20 8.9	1.740	2.727	5.9	19.9
5 31	14 32.89	-22 9.1	2.096	3.031	8.9	19.3	5 31	14 37.20	-18 27.4	1.772	2.714	9.8	20.2
6 10	14 27.19	-21 34.1	2.173	3.036	12.0	19.5	6 10	14 33.23	-16 55.4	1.828	2.701	13.4	20.3
90264	2003 <i>CC</i> ₁		5 6.3 269°59	5°7'/ 1.6	18		468470	2004 <i>QB</i> ₂₀		5 6.3 258°59	0°0'/ 6.3	17	
4 1	15 16.07	-0 55.0	2.275	3.119	11.5	19.6	4 1	15 19.51	-18 23.6	2.085	2.915	13.0	21.8
4 11	15 11.61	-0 2.2	2.197	3.110	9.1	19.4	4 11	15 14.62	-17 59.0	1.983	2.896	9.9	21.5
4 21	15 5.46	+0 47.2	2.143	3.100	6.8	19.2	4 21	15 7.58	-17 24.8	1.903	2.875	6.3	21.3
5 1	14 58.16	+1 28.6	2.115	3.091	5.7	19.1	5 1	14 59.00	-16 42.6	1.851	2.854	2.2	21.0
5 11	14 50.45	+1 57.4	2.115	3.081	6.6	19.2	5 11	14 49.75	-15 55.8	1.826	2.833	2.0	20.9
5 21	14 43.10	+2 10.5	2.141	3.072	8.9	19.3	5 21	14 40.78	-15 8.7	1.830	2.811	6.3	21.1
5 31	14 36.81	+2 6.6	2.191	3.062	11.5	19.4	5 31	14 33.04	-14 26.5	1.860	2.789	10.2	21.3
6 10	14 32.12	+1 45.8	2.263	3.052	13.9	19.6	6 10	14 27.25	-13 53.3	1.913	2.766	13.7	21.5
261132	2005 <i>TO</i> ₃₄		5 6.3 280°53	2°9'/ 3.8	16		184184	2004 <i>OX</i> ₁₁		5 6.3 332°49	9°4'/11.1	17	
4 1	15 14.94	-10 17.7	2.280	3.127	11.4	21.0	4 1	15 20.20	-37 51.6	1.795	2.564	17.1	19.1
4 11	15 10.78	-9 27.5	2.198	3.121	8.6	20.8	4 11	15 16.24	-39 13.7	1.698	2.544	14.9	18.9
4 21	15 4.94	-8 33.7	2.141	3.115	5.5	20.6	4 21	15 9.22	-40 18.2	1.621	2.526	12.4	18.7
5 1	14 57.98	-7 40.2	2.111	3.109	3.1	20.4	5 1	14 59.75	-40 59.0	1.566	2.508	10.3	18.5
5 11	14 50.64	-6 51.4	2.108	3.103	3.9	20.4	5 11	14 49.02	-41 12.5	1.533	2.491	9.4	18.4
5 21	14 43.65	-6 11.3	2.134	3.097	6.9	20.6	5 21	14 38.51	-40 58.7	1.525	2.475	10.3	18.4
5 31	14 37.74	-5 43.1	2.185	3.091	10.0	20.8	5 31	14 29.71	-40 22.3	1.539	2.460	12.6	18.5
6 10	14 33.42	-5 28.5	2.258	3.085	12.8	21.0	6 10	14 23.78	-39 31.9	1.574	2.445	15.3	18.7
503455	2016 <i>EV</i> ₁₁₉		5 6.3 345°21	1°0'/ 6.8	17		222811	2002 <i>CP</i> ₂₆₁		5 6.3 165°41	1°1'/ 7.2	17	
4 1	15 19.34	-18 58.7	1.290	2.147	17.8	21.3	4 1	15 21.79	-21 15.7	2.479	3.289	11.8	21.4
4 11	15 15.52	-19 9.3	1.216	2.141	13.7	21.1	4 11	15 15.83	-21 12.7	2.396	3.295	9.0	21.2
4 21	15 8.60	-19 9.0	1.161	2.136	8.8	20.8	4 21	15 8.07	-21 0.9	2.337	3.301	5.9	21.0
5 1	14 59.42	-18 58.3	1.129	2.132	3.4	20.4	5 1	14 59.10	-20 41.0	2.305	3.306	2.5	20.8
5 11	14 49.35	-18 40.2	1.121	2.129	2.6	20.4	5 11	14 49.74	-20 15.0	2.303	3.310	1.8	20.7
5 21	14 39.90	-18 19.2	1.137	2.126	8.0	20.7	5 21	14 40.80	-19 45.9	2.331	3.313	5.0	21.0
5 31	14 32.45	-18 1.4	1.176	2.124	13.1	21.0	5 31	14 33.05	-19 17.2	2.386	3.316	8.3	21.2
6 10	14 27.94	-17 51.9	1.235	2.122	17.5	21.2	6 10	14 27.02	-18 52.5	2.466	3.318	11.1	21.4
178475	1999 <i>RC</i> ₁₇₂		5 6.3 283°83	1°0'/ 5.6	18		500920	2013 <i>PW</i> ₂₅		5 6.3 199°54	8°8'/25.6	17	
4 1	15 16.78	-14 59.7	2.324	3.160	11.6	20.2	4 1	15 18.42	+9 8.7	2.498	3.316	11.5	22.1
4 11	15 12.32	-14 40.0	2.222	3.139	8.8	20.0	4 11	15 13.22	+11 14.3	2.437	3.311	9.9	22.0
4 21	15 6.02	-14 14.4	2.144	3.118	5.5	19.8	4 21	15 6.40	+13 11.8	2.401	3.306	8.9	21.9
5 1	14 58.41	-13 45.0	2.094	3.097	2.0	19.5	5 1	14 58.51	+14 53.8	2.393	3.300	8.9	21.9
5 11	14 50.24	-13 14.8	2.071	3.076	2.3	19.5	5 11	14 50.26	+16 14.2	2.411	3.294	10.0	21.9
5 21	14 42.32	-12 47.2	2.077	3.055	5.9	19.7	5 21	14 42.37	+17 9.5	2.455	3.286	11.7	22.0
5 31	14 35.43	-12 25.5	2.109	3.033	9.5	19.9	5 31	14 35.51	+17 38.7	2.520	3.278	13.5	22.2
6 10	14 30.20	-12 12.6	2.164	3.012	12.6	20.0	6 10	14 30.19	+17 43.4	2.604	3.269	15.1	22.3
74843	1999 <i>TB</i> ₃₉		5 6.3 127°33	4°8'/ 3.2	18		166655	2002 <i>TS</i> ₂₃		5 6.3 220°59	1°3'/ 5.3	17	
4 1	15 21.03	-6 24.2	1.749	2.598	14.2	19.6	4 1	15 17.52	-14 21.7	2.233	3.071	11.9	20.4
4 11	15 15.63	-5 30.3	1.688	2.609	10.8	19.4	4 11	15 12.80	-13 53.1	2.148	3.066	9.0	20.2
4 21	15 8.05	-4 36.3	1.650	2.619	7.3	19.2	4 21	15 6.26	-13 18.8	2.088	3.062	5.6	20.0
5 1	14 59.08	-3 47.8	1.637	2.629	4.9	19.1	5 1	14 58.50	-12 41.4	2.054	3.058	2.1	19.7
5 11	14 49.74	-3 10.3	1.652	2.639	5.9	19.2	5 11	14 50.29	-12 4.4	2.049	3.053	2.6	19.8
5 21	14 41.05	-2 47.7	1.693	2.648	9.1	19.4	5 21	14 42.48	-11 31.6	2.072	3.048	6.1	20.0
5 31	14 33.90	-2 42.4	1.759	2.656	12.5	19.6	5 31	14 35.80	-11 6.4	2.122	3.043	9.6	20.2
6 10	14 28.89	-2 54.3	1.845	2.665	15.5	19.8	6 10	14 30.86	-10 51.3	2.194	3.038	12.6	20.4
497738	2006 <i>SX</i> ₂₀₆		5 6.3 235°35	2°0'/ 7.5	17		215222	2000 <i>WE</i> ₂₉		5 6.3 249°50	5°9'/30.9	18	
4 1	15 23.37	-22 23.4	1.924	2.742	14.4	22.9	4 1	15 18.95	+4 27.7	2.874	3.694	10.1	20.5
4 11	15 17.78	-22 35.4	1.828	2.730	11.2	22.7	4 11	15 13.49	+5 3.5	2.783	3.674	8.2	20.3
4 21	15 9.69	-22 36.7	1.754	2.717	7.5	22.4	4 21	15 6.55	+5 33.0	2.717	3.654	6.6	20.2
5 1	14 59.77	-22 26.7	1.706	2.705	3.6	22.2	5 1	14 58.58	+5 52.6	2.679	3.633	5.9	20.1
5 11	14 49.05	-22 6.7	1.686	2.691	2.6	22.1	5 11	14 50.22	+5 59.0	2.668	3.612	6.6	20.1
5 21	14 38.69	-21 40.0	1.693	2.677	6.4	22.3	5 21	14 42.09	+5 50.3	2.686	3.590	8.4	20.2
5 31	14 29.77	-21 11.4	1.727	2.662	10.5	22.5	5 31	14 34.82	+5 25.9	2.728	3.568	10.5	20.3
6 10	14 23.14	-20 46.1	1.784	2.647	14.1	22.7	6 10	14 28.89	+4 46.8	2.793	3.545	12.5	20.4
335787	2007 <i>FQ</i> ₄₇		5 6.3 334°92	6°4'/ 2.3	17		62072	2000 <i>RD</i> ₇₈		5 6.4 286°97	0°6'/ 5.9	17	

EPHEMERIDES

5 6.4

5 6.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
361539	2007 <i>KN</i> ₃		5 6.4 282°52	4.4/ 3.9	18		477699	2010 <i>RA</i> ₁₁₈		5 6.4 48°59	1°0/ 7.1	16	
4 1	15 22.97	- 9 14.1	1.504	2.357	15.9	21.4	4 1	15 18.70	-19 35.7	2.413	3.234	11.7	20.5
4 11	15 18.20	- 8 30.0	1.397	2.322	12.3	21.1	4 11	15 13.63	-19 50.4	2.332	3.238	8.9	20.3
4 21	15 10.42	- 7 40.1	1.313	2.287	8.2	20.8	4 21	15 6.77	-19 58.3	2.274	3.242	5.8	20.1
5 1	15 0.21	- 6 49.5	1.253	2.251	4.7	20.5	5 1	14 58.71	-19 59.8	2.244	3.245	2.4	19.9
5 11	14 48.69	- 6 4.8	1.218	2.214	5.9	20.4	5 11	14 50.23	-19 56.4	2.243	3.249	1.7	19.8
5 21	14 37.27	- 5 32.8	1.209	2.176	10.6	20.6	5 21	14 42.11	-19 50.0	2.270	3.253	5.0	20.1
5 31	14 27.37	- 5 19.0	1.223	2.138	15.6	20.7	5 31	14 35.12	-19 43.5	2.324	3.257	8.2	20.3
6 10	14 20.11	- 5 26.2	1.256	2.099	20.1	20.9	6 10	14 29.80	-19 39.8	2.402	3.261	11.1	20.5
425780	2011 <i>CC</i> ₅₆		5 6.4 106°08	1°8/ 7.6	17		505179	2012 <i>TO</i> ₈₀		5 6.4 255°70	1°5/ 7.4	17	
4 1	15 21.55	-22 52.8	1.861	2.683	14.6	21.9	4 1	15 19.29	-21 50.1	2.055	2.878	13.4	22.1
4 11	15 16.14	-22 48.4	1.791	2.695	11.3	21.7	4 11	15 14.48	-21 47.4	1.963	2.869	10.3	21.9
4 21	15 8.46	-22 31.7	1.743	2.708	7.4	21.5	4 21	15 7.52	-21 34.0	1.893	2.859	6.8	21.7
5 1	14 59.28	-22 3.3	1.721	2.721	3.4	21.3	5 1	14 59.03	-21 10.5	1.850	2.850	3.0	21.4
5 11	14 49.68	-21 26.1	1.727	2.733	2.4	21.2	5 11	14 49.94	-20 39.1	1.834	2.840	2.1	21.3
5 21	14 40.71	-20 44.5	1.760	2.745	6.1	21.5	5 21	14 41.22	-20 3.5	1.845	2.830	5.9	21.6
5 31	14 33.33	-20 3.9	1.819	2.756	9.9	21.7	5 31	14 33.80	-19 28.3	1.884	2.820	9.6	21.8
6 10	14 28.17	-19 29.2	1.900	2.768	13.2	22.0	6 10	14 28.38	-18 58.1	1.945	2.810	13.0	22.0
272488	2005 <i>UC</i> ₁₂₈		5 6.4 77°20	0°3/ 6.6	18		500696	2012 <i>VF</i> ₁₀₉		5 6.4 106°12	0°5/ 5.9	17	
4 1	15 20.38	-20 10.6	1.733	2.568	15.0	20.9	4 1	15 18.77	-16 3.9	2.496	3.323	11.2	22.2
4 11	15 15.19	-19 36.4	1.676	2.590	11.3	20.7	4 11	15 13.43	-15 50.2	2.429	3.341	8.4	22.0
4 21	15 7.79	-18 50.5	1.641	2.613	7.1	20.5	4 21	15 6.50	-15 31.1	2.386	3.358	5.2	21.8
5 1	14 59.01	-17 55.7	1.631	2.635	2.6	20.2	5 1	14 58.58	-15 8.4	2.371	3.375	1.8	21.6
5 11	14 49.96	-16 57.0	1.649	2.656	2.0	20.2	5 11	14 50.39	-14 44.7	2.385	3.391	1.8	21.7
5 21	14 41.68	-16 0.1	1.694	2.678	6.4	20.6	5 21	14 42.67	-14 22.7	2.429	3.408	5.1	21.9
5 31	14 35.05	-15 10.5	1.765	2.700	10.3	20.9	5 31	14 36.06	-14 5.3	2.499	3.424	8.2	22.1
6 10	14 30.62	-14 32.2	1.858	2.721	13.7	21.1	6 10	14 31.04	-13 54.6	2.594	3.439	10.8	22.3
4596	1981 <i>QB</i>		5 6.4 170°81	12°1/20.8	18		87770	2000 <i>SB</i> ₉₅		5 6.4 257°12	2°0/ 8.1	18	
4 1	15 24.50	+25 48.2	2.644	3.378	13.0	21.8	4 1	15 16.74	-25 26.0	2.400	3.208	12.2	19.3
4 11	15 17.71	+27 46.0	2.613	3.385	12.3	21.8	4 11	15 12.27	-25 3.4	2.303	3.198	9.5	19.1
4 21	15 9.16	+29 24.1	2.604	3.391	12.1	21.8	4 21	15 5.99	-24 27.9	2.229	3.188	6.5	18.9
5 1	14 59.49	+30 35.8	2.619	3.396	12.3	21.8	5 1	14 58.45	-23 40.2	2.181	3.177	3.3	18.6
5 11	14 49.52	+31 17.3	2.656	3.400	13.0	21.8	5 11	14 50.46	-22 43.1	2.162	3.166	2.2	18.5
5 21	14 40.06	+31 27.8	2.712	3.402	14.0	21.9	5 21	14 42.82	-21 40.5	2.171	3.155	5.1	18.7
5 31	14 31.83	+31 9.2	2.786	3.403	15.0	22.0	5 31	14 36.31	-20 37.6	2.207	3.144	8.4	18.9
6 10	14 25.36	+30 25.5	2.874	3.402	15.9	22.1	6 10	14 31.51	-19 39.5	2.268	3.133	11.4	19.1
84821	2002 <i>YR</i> ₂₁		5 6.4 219°03	1°5/ 5.4	18		355593	2008 <i>CU</i> ₁₅₃		5 6.4 142°88	4°8/ 10.3	18	
4 1	15 20.07	-14 38.7	1.839	2.681	13.9	20.0	4 1	15 21.50	-32 53.6	2.671	3.434	12.2	21.7
4 11	15 15.12	-14 9.4	1.756	2.676	10.5	19.7	4 11	15 15.78	-33 26.6	2.586	3.441	10.1	21.6
4 21	15 7.90	-13 33.1	1.697	2.672	6.6	19.5	4 21	15 8.16	-33 46.2	2.524	3.447	7.7	21.4
5 1	14 59.13	-12 52.6	1.663	2.666	2.5	19.2	5 1	14 59.22	-33 50.8	2.488	3.453	5.6	21.3
5 11	14 49.79	-12 12.2	1.657	2.661	3.0	19.2	5 11	14 49.80	-33 40.4	2.479	3.459	4.8	21.3
5 21	14 40.92	-11 36.7	1.678	2.655	7.1	19.5	5 21	14 40.76	-33 17.0	2.499	3.465	5.9	21.4
5 31	14 33.49	-11 10.2	1.724	2.649	11.2	19.7	5 31	14 32.92	-32 44.4	2.545	3.470	8.0	21.5
6 10	14 28.18	-10 56.0	1.793	2.643	14.6	19.9	6 10	14 26.87	-32 7.4	2.617	3.475	10.3	21.7
308350	2005 <i>QE</i> ₇₀		5 6.4 241°12	4°5/ 1.7	18		356711	2011 <i>UH</i> ₁₅₉		5 6.4 207°51	0°6/ 6.9	17	
4 1	15 15.52	- 3 1.8	2.772	3.610	9.9	21.2	4 1	15 16.91	-20 31.9	2.839	3.654	10.3	22.0
4 11	15 10.97	- 2 3.1	2.683	3.595	7.7	21.1	4 11	15 12.06	-20 14.2	2.745	3.649	7.9	21.9
4 21	15 5.00	- 1 5.1	2.620	3.580	5.6	20.9	4 21	15 5.70	-19 48.7	2.676	3.643	5.0	21.7
5 1	14 58.06	- 0 12.0	2.585	3.564	4.5	20.8	5 1	14 58.33	-19 16.4	2.635	3.637	2.0	21.4
5 11	14 50.75	+ 0 32.2	2.578	3.548	5.4	20.8	5 11	14 50.60	-18 39.7	2.624	3.631	1.4	21.4
5 21	14 43.70	+ 1 4.4	2.599	3.531	7.5	21.0	5 21	14 43.17	-18 1.4	2.641	3.624	4.5	21.6
5 31	14 37.49	+ 1 22.5	2.646	3.514	9.9	21.1	5 31	14 36.66	-17 25.0	2.687	3.617	7.5	21.8
6 10	14 32.62	+ 1 25.8	2.715	3.496	12.1	21.2	6 10	14 31.57	-16 53.4	2.758	3.609	10.1	21.9
255310	2005 <i>WA</i> ₁₂		5 6.4 264°04	0°3/ 6.6	17		464381	2016 <i>AN</i> ₁₈₅		5 6.4 108°52	4°7/ 3.7	16	
4 1	15 16.23	-19 32.8	2.550	3.373	11.1	21.5	4 1	15 22.55	- 8 1.3	1.482	2.337	16.0	22.1
4 11	15 11.77	-19 10.1	2.448	3.357	8.4	21.3	4 11	15 17.12	- 7 7.8	1.425	2.350	12.1	21.9
4 21	15 5.62	-18 38.8	2.371	3.341	5.4	21.0	4 21	15 9.16	- 6 12.7	1.390	2.363	7.9	21.6
5 1	14 58.31	-18 0.4	2.322	3.325	2.0	20.8	5 1	14 59.58	- 5 22.2	1.380	2.376	4.9	21.5
5 11	14 50.53	-17 17.8	2.301	3.308	1.6	20.7	5 11	14 49.59	- 4 42.6	1.396	2.388	6.0	21.6
5 21	14 43.03	-16 34.2	2.309	3.291	5.1	20.9	5 21	14 40.40	- 4 18.6	1.438	2.400	9.7	21.8
5 31	14 36.50	-15 53.6	2.344	3.274	8.4	21.1	5 31	14 33.04	- 4 12.9	1.503	2.412	13.6	22.1
6 10	14 31.52	-15 19.5	2.403	3.256	11.3	21.3	6 10	14 28.16	- 4 25.6	1.588	2.423	16.9	22.3
2052	Tamiriko		5 6.4 164°10	0°8/ 5.6	18		127289	2002 <i>JD</i> ₇₅		5 6.4 326°53	0°8/ 6.8	17	
4 1	15 16.30	-16 45.3	2.412	3.244	11.3	15.6	4 1	15 17.81	-19 0.9	1.596	2.442	15.5	19.4
4 11	15 11.72	-16 1.4	2.332	3.247	8.5	15.5	4 11	15 13.94	-19 5.2	1.509	2.429	11.9	19.1
4 21	15 5.51	-15 10.0	2.276	3.249	5.3	15.3	4 21	15 7.47	-18 59.7	1.443	2.417	7.7	18.9
5 1	14 58.24	-14 13.8	2.248	3.251	1.9	15.0	5 1	14 59.09	-18 45.4	1.401	2.404	3.0	18.5
5 11	14 50.64	-13 16.8	2.248	3.253	2.1	15.0	5 11	14 49.90	-18 24.7	1.385	2.393	2.2	18.5
5 21	14 43.44	-12 23.2	2.278	3.255	5.6	15.3	5 21	14 41.13	-18 1.9	1.395	2.382	7.1	18.7
5 31	14 37.33	-11 36.8	2.334	3.256	8.8	15.5	5 31	14 33.94	-17 41.7	1.429	2.372	11.6	19.0
6 10	14 32.81	-11 0.8	2.414	3.257	11.6	15.7	6 10	14 29.17	-17 28.9	1.484	2.362	15.6	19.2
108099	2001 <i>FA</i> ₁₈₇		5 6.4 144°90	4°0/ 8.9	18		472202	2014 <i>EU</i> ₁₀		5 6.4 55°21	1°1/ 5.6	17	

EPHEMERIDES

5 6.4

5 6.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
14879	1991 <i>AL</i> ₂		5 6.4 72°13	4.2/ 3.2	18		372389	2009 <i>QJ</i> ₁₅		5 6.4 237°65	0°0/ 6.1	17	
4 1	15 18.60	-11 4.0	1.550	2.408	15.2	17.7	4 1	15 20.05	-18 23.9	1.879	2.714	14.0	21.7
4 11	15 13.97	-9 33.4	1.498	2.427	11.4	17.5	4 11	15 15.18	-18 3.0	1.790	2.705	10.7	21.5
4 21	15 7.09	-7 57.3	1.470	2.445	7.3	17.3	4 21	15 8.03	-17 32.4	1.724	2.697	6.7	21.2
5 1	14 58.82	-6 23.3	1.467	2.464	4.3	17.2	5 1	14 59.26	-16 53.7	1.684	2.688	2.4	20.9
5 11	14 50.29	-4 59.8	1.491	2.483	5.6	17.3	5 11	14 49.88	-16 10.6	1.672	2.679	2.1	20.9
5 21	14 42.55	-3 53.2	1.541	2.502	9.3	17.5	5 21	14 40.92	-15 27.8	1.687	2.669	6.6	21.2
5 31	14 36.48	-3 7.7	1.614	2.520	12.9	17.8	5 31	14 33.37	-14 50.3	1.727	2.660	10.7	21.4
6 10	14 32.65	-2 44.4	1.708	2.539	16.1	18.1	6 10	14 27.96	-14 22.4	1.790	2.650	14.3	21.6
510423	2011 <i>UX</i> ₃₀₈		5 6.4 177°40	4.4/10.5	18		10549	Helsingborg		5 6.4 279°37	8°3/10.8	18	
4 1	15 18.11	-32 56.0	2.523	3.295	12.6	20.8	4 1	15 24.44	-36 25.2	1.850	2.616	16.8	18.4
4 11	15 13.30	-32 59.3	2.433	3.295	10.3	20.7	4 11	15 19.36	-37 28.0	1.749	2.598	14.3	18.2
4 21	15 6.63	-32 47.2	2.366	3.296	7.8	20.5	4 21	15 11.18	-38 13.0	1.668	2.580	11.7	18.0
5 1	14 58.69	-32 18.8	2.324	3.296	5.5	20.4	5 1	15 0.55	-38 34.7	1.610	2.562	9.3	17.8
5 11	14 50.33	-31 35.5	2.309	3.296	4.4	20.3	5 11	14 48.70	-38 30.0	1.576	2.544	8.3	17.7
5 21	14 42.40	-30 40.4	2.322	3.296	5.7	20.4	5 21	14 37.09	-38 0.0	1.567	2.525	9.4	17.7
5 31	14 35.67	-29 38.5	2.362	3.296	8.1	20.5	5 31	14 27.22	-37 10.1	1.582	2.506	12.0	17.8
6 10	14 30.72	-28 35.3	2.427	3.296	10.7	20.7	6 10	14 20.17	-36 9.4	1.619	2.488	15.1	18.0
338827	2003 <i>WS</i> ₈₉		5 6.4 234°50	1.4/ 7.4	17		172448	2003 <i>QX</i> ₆₁		5 6.4 215°95	1°7/ 5.2	17	
4 1	15 19.05	-22 15.7	2.190	3.009	12.8	21.3	4 1	15 22.19	-13 56.3	2.024	2.858	13.1	21.0
4 11	15 14.16	-22 7.9	2.098	3.001	9.9	21.1	4 11	15 16.60	-13 25.9	1.934	2.850	9.9	20.8
4 21	15 7.26	-21 49.3	2.029	2.994	6.5	20.9	4 21	15 8.83	-12 49.2	1.867	2.840	6.2	20.5
5 1	14 58.95	-21 20.7	1.986	2.986	2.9	20.7	5 1	14 59.55	-12 8.9	1.827	2.830	2.5	20.2
5 11	14 50.10	-20 44.5	1.971	2.978	2.0	20.6	5 11	14 49.67	-11 28.9	1.816	2.819	3.0	20.3
5 21	14 41.62	-20 4.2	1.985	2.969	5.5	20.8	5 21	14 40.18	-10 53.7	1.832	2.807	6.9	20.5
5 31	14 34.38	-19 24.5	2.025	2.960	9.1	21.0	5 31	14 32.01	-10 27.2	1.876	2.794	10.8	20.7
6 10	14 29.02	-18 49.8	2.089	2.952	12.4	21.2	6 10	14 25.86	-10 12.4	1.941	2.780	14.1	20.9
125740	2001 <i>XD</i> ₁₁₇		5 6.4 254°68	3°1/ 8.1	18		479787	2014 <i>EM</i> ₄₇		5 6.4 59°05	0°9/ 5.8	17	
4 1	15 23.53	-24 46.7	1.649	2.470	16.2	19.7	4 1	15 18.99	-14 16.8	2.137	2.974	12.4	21.3
4 11	15 18.44	-24 58.8	1.552	2.454	12.9	19.5	4 11	15 13.98	-14 14.7	2.062	2.979	9.3	21.1
4 21	15 10.43	-24 56.5	1.476	2.437	8.9	19.2	4 21	15 7.06	-14 8.3	2.010	2.984	5.8	20.9
5 1	15 0.21	-24 38.2	1.424	2.420	4.7	18.9	5 1	14 58.88	-13 59.4	1.985	2.989	2.1	20.6
5 11	14 48.96	-24 5.3	1.399	2.403	3.5	18.8	5 11	14 50.27	-13 50.2	1.989	2.994	2.2	20.6
5 21	14 38.07	-23 21.7	1.399	2.385	7.3	18.9	5 21	14 42.11	-13 43.5	2.020	3.000	5.9	20.9
5 31	14 28.89	-22 34.1	1.425	2.366	11.8	19.2	5 31	14 35.19	-13 41.9	2.078	3.005	9.4	21.1
6 10	14 22.38	-21 50.0	1.473	2.347	15.9	19.4	6 10	14 30.09	-13 47.4	2.159	3.011	12.4	21.3
318585	2005 <i>GA</i> ₁₈₈		5 6.4 150°69	3°9/ 8.6	17		284187	2006 <i>AZ</i> ₁₀₀		5 6.4 250°52	3°2/ 8.3	17	
4 1	15 24.23	-26 35.4	1.679	2.492	16.3	21.5	4 1	15 23.90	-26 2.5	1.642	2.459	16.5	20.7
4 11	15 18.68	-26 56.7	1.602	2.496	13.0	21.3	4 11	15 18.78	-26 1.2	1.542	2.441	13.1	20.4
4 21	15 10.36	-27 2.7	1.545	2.501	9.1	21.0	4 21	15 10.68	-25 42.8	1.462	2.422	9.1	20.2
5 1	15 0.10	-26 51.7	1.513	2.504	5.3	20.8	5 1	15 0.33	-25 5.8	1.407	2.402	4.9	19.9
5 11	14 49.13	-26 25.0	1.507	2.508	4.0	20.8	5 11	14 48.95	-24 12.0	1.378	2.382	3.5	19.7
5 21	14 38.79	-25 46.7	1.528	2.511	7.0	20.9	5 21	14 37.93	-23 6.7	1.376	2.361	7.4	19.9
5 31	14 30.27	-25 3.2	1.574	2.514	11.0	21.2	5 31	14 28.65	-21 57.7	1.398	2.339	12.0	20.1
6 10	14 24.38	-24 21.4	1.642	2.516	14.6	21.4	6 10	14 22.09	-20 53.7	1.443	2.317	16.2	20.3
354784	2005 <i>UO</i> ₂₂₀		5 6.4 171°57	2°7/ 7.7	18		179408	2001 <i>YF</i> ₁₅₃		5 6.4 150°87	0°0/ 6.1	17	
4 1	15 25.38	-23 12.9	1.523	2.351	17.0	21.2	4 1	15 20.46	-16 7.6	2.506	3.330	11.2	20.4
4 11	15 19.76	-23 28.7	1.446	2.353	13.3	20.9	4 11	15 14.85	-16 18.2	2.424	3.334	8.5	20.2
4 21	15 11.15	-23 30.8	1.390	2.355	8.9	20.7	4 21	15 7.53	-16 24.3	2.367	3.337	5.3	20.0
5 1	15 0.41	-23 18.3	1.358	2.356	4.4	20.4	5 1	14 59.04	-16 26.7	2.338	3.341	1.9	19.8
5 11	14 48.88	-22 52.9	1.352	2.357	3.2	20.3	5 11	14 50.14	-16 26.9	2.337	3.344	1.6	19.8
5 21	14 38.00	-22 19.0	1.372	2.358	7.3	20.6	5 21	14 41.60	-16 26.8	2.367	3.347	5.1	20.0
5 31	14 29.07	-21 43.3	1.417	2.358	11.9	20.8	5 31	14 34.15	-16 28.7	2.423	3.350	8.3	20.2
6 10	14 22.98	-21 12.2	1.483	2.357	15.9	21.1	6 10	14 28.33	-16 34.6	2.505	3.353	11.0	20.4
229200	2004 <i>UT</i> ₇		5 6.4 94°80	1°7/ 7.7	17		415766	2000 <i>SG</i> ₁₇₄		5 6.4 262°97	5°6/ 9.6	17	
4 1	15 19.22	-24 5.4	1.936	2.757	14.2	20.3	4 1	15 23.90	-30 50.0	1.702	2.499	16.8	21.3
4 11	15 14.33	-23 40.8	1.865	2.768	10.9	20.1	4 11	15 18.90	-31 14.8	1.599	2.479	13.8	21.1
4 21	15 7.32	-23 2.2	1.816	2.780	7.2	19.9	4 21	15 10.84	-31 21.3	1.516	2.459	10.4	20.8
5 1	14 58.94	-22 11.2	1.793	2.792	3.3	19.7	5 1	15 0.42	-31 5.9	1.456	2.437	7.0	20.6
5 11	14 50.19	-21 11.5	1.797	2.803	2.2	19.7	5 11	14 48.86	-30 28.3	1.422	2.415	5.7	20.4
5 21	14 42.06	-20 8.6	1.829	2.814	5.8	19.9	5 21	14 37.61	-29 31.6	1.414	2.393	8.0	20.5
5 31	14 35.41	-19 8.2	1.887	2.825	9.5	20.2	5 31	14 28.11	-28 23.3	1.431	2.370	11.9	20.7
6 10	14 30.83	-18 15.7	1.968	2.836	12.8	20.4	6 10	14 21.39	-27 12.8	1.469	2.347	15.8	20.8
114945	2003 <i>QO</i> ₅₄		5 6.4 165°97	1°9/ 7.9	17		296142	2009 <i>BL</i> ₉₂		5 6.4 310°92	5°5/ 9.0	17	
4 1	15 21.11	-23 47.4	2.559	3.361	11.7	20.8	4 1	15 18.86	-28 5.7	1.277	2.113	19.2	20.3
4 11	15 15.37	-23 51.5	2.474	3.366	9.1	20.6	4 11	15 15.79	-28 36.4	1.185	2.091	15.6	20.0
4 21	15 7.84	-23 45.9	2.413	3.371	6.1	20.4	4 21	15 9.26	-28 47.8	1.111	2.069	11.4	19.7
5 1	14 59.13	-23 30.7	2.379	3.375	3.1	20.2	5 1	14 59.94	-28 36.2	1.057	2.048	7.2	19.4
5 11	14 50.00	-23 7.5	2.374	3.378	2.2	20.2	5 11	14 49.25	-28 1.0	1.027	2.027	5.7	19.2
5 21	14 41.27	-22 38.9	2.399	3.381	4.9	20.4	5 21	14 38.89	-27 6.5	1.019	2.006	9.0	19.4
5 31	14 33.68	-22 8.6	2.451	3.384	7.9	20.6	5 31	14 30.61	-26 1.7	1.034	1.987	13.9	19.6
6 10	14 27.79	-21 40.5	2.529	3.385	10.7	20.7	6 10	14 25.63	-24 57.6	1.067	1.968	18.6	19.8
489057	2005 <i>YS</i> ₁₂₈		5 6.4 297°88	14°6/16.5	18		58906	1998 <i>KM</i> ₁₈		5 6.4 197°63	1°4/ 7.9</		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
370137	2001 <i>WS</i> ₅₇		5 6.4 208°15	0°6/ 6.8 17			356894	2011 <i>YN</i> ₁₅		5 6.4 229°67	6°6/29.7 17		
4 1	15 20.67	-20 28.3	2.313	3.131	12.3	23.2	4 1	15 15.75	+ 5 21.6	2.704	3.532	10.4	21.4
4 11	15 15.24	-20 6.4	2.219	3.124	9.4	23.0	4 11	15 11.17	+ 6 19.9	2.632	3.524	8.6	21.2
4 21	15 7.88	-19 34.5	2.149	3.117	6.0	22.8	4 21	15 5.16	+ 7 11.6	2.584	3.517	7.1	21.1
5 1	14 59.19	-18 54.1	2.107	3.109	2.3	22.5	5 1	14 58.20	+ 7 52.1	2.563	3.509	6.6	21.1
5 11	14 50.01	-18 8.0	2.093	3.101	1.7	22.5	5 11	14 50.93	+ 8 17.5	2.569	3.501	7.4	21.1
5 21	14 41.21	-17 20.2	2.109	3.091	5.5	22.7	5 21	14 43.97	+ 8 25.7	2.600	3.492	9.1	21.2
5 31	14 33.59	-16 35.3	2.152	3.081	9.0	22.9	5 31	14 37.91	+ 8 16.0	2.656	3.483	11.1	21.3
6 10	14 27.78	-15 57.3	2.219	3.070	12.2	23.1	6 10	14 33.22	+ 7 49.4	2.732	3.474	12.9	21.4
338237	2002 <i>TS</i> ₉₈		5 6.4 180°17	0°4/ 6.7 18 R			205738	2002 <i>AF</i> ₁₇₇		5 6.4 136°05	4°6/ 9.1 18		
4 1	15 18.48	-19 32.6	2.589	3.408	11.1	21.6	4 1	15 24.08	-28 28.7	1.570	2.382	17.3	20.6
4 11	15 13.34	-19 16.2	2.503	3.409	8.4	21.4	4 11	15 18.79	-28 48.2	1.495	2.387	13.9	20.4
4 21	15 6.56	-18 51.9	2.441	3.410	5.3	21.2	4 21	15 10.55	-28 49.7	1.440	2.391	10.0	20.1
5 1	14 58.70	-18 21.3	2.407	3.410	2.0	21.0	5 1	15 0.23	-28 31.0	1.408	2.396	6.2	19.9
5 11	14 50.46	-17 46.6	2.402	3.409	1.5	21.0	5 11	14 49.20	-27 53.5	1.402	2.400	4.7	19.8
5 21	14 42.59	-17 11.1	2.427	3.409	4.9	21.2	5 21	14 38.86	-27 2.2	1.421	2.404	7.5	20.0
5 31	14 35.76	-16 38.2	2.479	3.408	8.0	21.4	5 31	14 30.50	-26 4.7	1.466	2.408	11.4	20.2
6 10	14 30.50	-16 11.1	2.555	3.406	10.8	21.6	6 10	14 24.94	-25 9.1	1.532	2.412	15.1	20.5
468451	2003 <i>QL</i> ₁₁₁		5 6.4 266°08	8°5/28.7 18			42609	<i>Daubechies</i>		5 6.4 343°22	6°5/ 2.9 18		
4 1	15 17.94	+ 5 45.2	2.122	2.956	12.6	20.7	4 1	15 6.27	- 8 53.2	0.875	1.783	19.3	16.8
4 11	15 13.30	+ 7 7.4	2.040	2.936	10.6	20.6	4 11	15 6.49	- 7 50.2	0.805	1.759	14.8	16.5
4 21	15 6.73	+ 8 22.9	1.982	2.914	9.0	20.4	4 21	15 3.44	- 6 39.2	0.752	1.737	10.0	16.1
5 1	14 58.81	+ 9 24.6	1.949	2.893	8.5	20.3	5 1	14 57.86	- 5 30.2	0.718	1.718	6.6	15.9
5 11	14 50.34	+10 6.5	1.942	2.871	9.7	20.4	5 11	14 51.16	- 4 35.1	0.703	1.701	8.4	15.9
5 21	14 42.18	+10 24.7	1.960	2.848	11.8	20.5	5 21	14 45.00	- 4 4.4	0.707	1.686	13.5	16.1
5 31	14 35.15	+10 17.9	1.999	2.825	14.2	20.6	5 31	14 40.97	- 4 4.6	0.728	1.675	18.9	16.3
6 10	14 29.88	+ 9 47.7	2.058	2.802	16.5	20.7	6 10	14 40.17	- 4 36.4	0.763	1.666	23.7	16.5
433373	2013 <i>SD</i> ₅₀		5 6.4 219°56	2°7/ 8.5 17			32462	<i>Janmitchener</i>		5 6.4 103°15	0°3/ 6.1 18		
4 1	15 21.11	-26 35.3	2.241	3.041	13.2	22.5	4 1	15 17.24	-17 11.7	2.461	3.290	11.3	19.3
4 11	15 15.77	-26 25.9	2.143	3.032	10.4	22.3	4 11	15 12.39	-16 49.5	2.390	3.303	8.5	19.2
4 21	15 8.31	-26 2.6	2.068	3.022	7.2	22.1	4 21	15 5.94	-16 20.7	2.343	3.315	5.3	19.0
5 1	14 59.37	-25 25.2	2.019	3.012	4.0	21.9	5 1	14 58.48	-15 47.5	2.324	3.328	1.8	18.8
5 11	14 49.86	-24 36.0	1.999	3.001	2.9	21.8	5 11	14 50.74	-15 12.8	2.334	3.340	1.7	18.8
5 21	14 40.74	-23 38.7	2.007	2.990	5.6	21.9	5 21	14 43.43	-14 39.7	2.372	3.352	5.1	19.0
5 31	14 32.91	-22 38.9	2.042	2.978	9.1	22.1	5 31	14 37.22	-14 11.6	2.437	3.364	8.2	19.2
6 10	14 27.04	-21 42.3	2.101	2.965	12.3	22.3	6 10	14 32.58	-13 50.9	2.527	3.376	10.9	19.4
425762	2011 <i>CS</i> ₁₈		5 6.4 21°87	12°1/28.3 17			51111	2000 <i>HM</i> ₂₆		5 6.4 335°87	1°2/ 5.5 18		
4 1	15 16.63	+ 8 51.6	1.424	2.277	16.7	19.7	4 1	15 16.69	-15 36.0	1.971	2.814	13.1	19.3
4 11	15 12.78	+10 31.1	1.382	2.282	14.2	19.6	4 11	15 12.45	-15 2.7	1.891	2.812	9.8	19.1
4 21	15 6.52	+11 54.8	1.360	2.288	12.5	19.5	4 21	15 6.21	-14 22.0	1.835	2.810	6.1	18.8
5 1	14 58.71	+12 52.5	1.360	2.295	12.1	19.5	5 1	14 58.63	-13 36.7	1.805	2.808	2.2	18.6
5 11	14 50.51	+13 17.4	1.381	2.303	13.3	19.6	5 11	14 50.59	-12 51.2	1.802	2.807	2.6	18.6
5 21	14 43.06	+13 7.4	1.423	2.311	15.4	19.7	5 21	14 43.00	-12 9.8	1.826	2.805	6.5	18.8
5 31	14 37.31	+12 24.3	1.485	2.320	17.8	19.9	5 31	14 36.69	-11 37.0	1.876	2.804	10.2	19.1
6 10	14 33.87	+11 13.6	1.562	2.330	20.1	20.1	6 10	14 32.28	-11 15.6	1.948	2.802	13.5	19.3
355220	2007 <i>AF</i> ₂₃		5 6.4 182°91	6°9/28.9 18			165165	2000 <i>QS</i> ₉₈		5 6.4 232°76	0°2/ 6.3 17		
4 1	15 16.09	+ 8 45.3	2.952	3.767	9.9	21.5	4 1	15 23.19	-17 21.4	1.780	2.615	14.7	21.2
4 11	15 11.26	+ 9 43.2	2.890	3.768	8.4	21.4	4 11	15 17.77	-17 9.4	1.688	2.603	11.2	20.9
4 21	15 5.13	+10 32.9	2.852	3.768	7.3	21.3	4 21	15 9.80	-16 48.6	1.619	2.591	7.1	20.6
5 1	14 58.17	+11 10.0	2.841	3.767	7.0	21.3	5 1	14 59.99	-16 20.4	1.575	2.578	2.5	20.3
5 11	14 50.96	+11 31.2	2.857	3.766	7.7	21.3	5 11	14 49.39	-15 48.1	1.558	2.565	2.3	20.3
5 21	14 44.08	+11 34.9	2.898	3.765	9.1	21.4	5 21	14 39.20	-15 16.0	1.569	2.551	7.0	20.5
5 31	14 38.06	+11 20.9	2.963	3.763	10.7	21.5	5 31	14 30.52	-14 49.0	1.606	2.537	11.4	20.8
6 10	14 33.31	+10 50.6	3.048	3.761	12.2	21.6	6 10	14 24.17	-14 31.4	1.664	2.522	15.3	21.0
380087	2013 <i>SJ</i> ₅₁		5 6.4 180°55	7°0/ 9.8 18			428077	2006 <i>HO</i> ₁₃₂		5 6.4 132°60	2°9/ 8.4 17		
4 1	15 34.02	-34 31.4	2.314	3.056	14.5	21.3	4 1	15 22.86	-25 43.6	2.207	3.008	13.3	21.9
4 11	15 25.98	-36 0.5	2.222	3.057	12.2	21.1	4 11	15 16.97	-26 0.8	2.130	3.019	10.5	21.7
4 21	15 15.06	-37 16.4	2.152	3.058	9.8	20.9	4 21	15 9.00	-26 6.2	2.076	3.030	7.3	21.5
5 1	15 1.90	-38 13.3	2.110	3.058	7.7	20.8	5 1	14 59.62	-25 59.1	2.048	3.040	4.1	21.3
5 11	14 47.66	-38 47.9	2.096	3.058	7.0	20.8	5 11	14 49.77	-25 40.8	2.049	3.049	3.1	21.3
5 21	14 33.64	-39 0.1	2.110	3.057	8.1	20.8	5 21	14 40.43	-25 14.2	2.077	3.059	5.6	21.5
5 31	14 21.18	-38 53.5	2.153	3.055	10.3	21.0	5 31	14 32.48	-24 43.7	2.133	3.068	8.8	21.7
6 10	14 11.24	-38 34.8	2.219	3.053	12.8	21.1	6 10	14 26.54	-24 14.1	2.213	3.076	11.8	21.9
315355	2007 <i>UG</i> ₄₆		5 6.4 150°26	0°4/ 6.7 16			432330	2009 <i>UK</i> ₁₀₃		5 6.4 194°19	0°0/ 6.2 17		
4 1	15 23.00	-19 55.8	1.883	2.709	14.3	22.0	4 1	15 21.15	-17 56.7	2.228	3.053	12.4	22.5
4 11	15 17.24	-19 34.3	1.809	2.718	10.9	21.8	4 11	15 15.64	-17 45.6	2.141	3.051	9.4	22.3
4 21	15 9.20	-19 1.9	1.757	2.727	6.9	21.6	4 21	15 8.15	-17 26.9	2.078	3.048	6.0	22.1
5 1	14 59.67	-18 20.5	1.732	2.734	2.6	21.4	5 1	14 59.33	-17 2.1	2.042	3.045	2.1	21.8
5 11	14 49.69	-17 33.6	1.734	2.742	2.0	21.3	5 11	14 50.00	-16 33.7	2.034	3.041	1.8	21.8
5 21	14 40.32	-16 46.3	1.765	2.748	6.3	21.6	5 21	14 41.08	-16 5.2	2.056	3.037	5.7	22.0
5 31	14 32.50	-16 3.6	1.822	2.754	10.2	21.9	5 31	14 33.39	-15 40.1	2.104	3.032	9.3	22.2
6 10	14 26.89	-15 30.0	1.902	2.759	13.7	22.1	6 10	14 27.54	-15 21.9	2.176	3.027	12.4	22.4
72732	2001 <i>FR</i> ₁₀₁		5 6.4 39°43	3°5/ 8.6 18			485414	2011 <i>OD</i> ₆₀		5 6.4 251°64	0°4/		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
156250	2001 <i>UM</i> ₁₉₈		5 6.4 176°77	0°3/ 6.9 18			98090	2000 <i>RE</i> ₇₃		5 6.4 258°08	0°0/ 6.2 17		
4 1	15 9.47	-19 33.5	5.151	5.962	6.0	21.5	4 1	15 21.86	-18 42.3	1.657	2.495	15.4	20.2
4 11	15 5.94	-19 20.8	5.061	5.963	4.6	21.4	4 11	15 17.02	-18 23.0	1.562	2.478	11.8	20.0
4 21	15 1.67	-19 4.2	4.997	5.963	2.9	21.3	4 21	15 9.49	-17 52.1	1.488	2.460	7.6	19.7
5 1	14 56.94	-18 44.5	4.962	5.964	1.1	21.1	5 1	14 59.95	-17 11.2	1.439	2.442	2.8	19.3
5 11	14 52.06	-18 23.0	4.957	5.964	0.8	21.1	5 11	14 49.51	-16 24.2	1.416	2.423	2.3	19.2
5 21	14 47.33	-18 1.0	4.983	5.965	2.6	21.2	5 21	14 39.44	-15 36.3	1.421	2.404	7.4	19.5
5 31	14 43.05	-17 39.8	5.037	5.965	4.3	21.4	5 31	14 30.94	-14 54.0	1.450	2.385	12.1	19.7
6 10	14 39.48	-17 21.0	5.118	5.965	5.8	21.5	6 10	14 24.91	-14 22.5	1.500	2.365	16.3	19.9
391718	2008 <i>CB</i> ₅₂		5 6.4 186°81	0°9/ 5.6 17			638	<i>Moira</i>		5 6.4 352°86	5°2/ 3.6 18		
4 1	15 17.82	-14 56.3	2.716	3.543	10.4	22.1	4 1	15 16.90	- 6 7.7	1.450	2.317	15.6	13.5
4 11	15 12.77	-14 36.2	2.630	3.542	7.8	21.9	4 11	15 13.20	- 5 33.1	1.381	2.312	12.0	13.2
4 21	15 6.19	-14 11.4	2.569	3.541	4.8	21.7	4 21	15 6.97	- 4 59.5	1.334	2.308	8.1	13.0
5 1	14 58.60	-13 43.7	2.537	3.540	1.8	21.5	5 1	14 58.99	- 4 32.4	1.310	2.304	5.3	12.8
5 11	14 50.66	-13 15.6	2.534	3.538	2.0	21.5	5 11	14 50.39	- 4 17.3	1.310	2.302	6.3	12.9
5 21	14 43.05	-12 50.0	2.560	3.536	5.1	21.7	5 21	14 42.35	- 4 18.1	1.335	2.300	10.0	13.1
5 31	14 36.40	-12 29.6	2.614	3.533	8.0	21.9	5 31	14 35.96	- 4 36.8	1.382	2.300	13.9	13.3
6 10	14 31.19	-12 16.4	2.692	3.530	10.6	22.1	6 10	14 31.96	- 5 13.1	1.449	2.300	17.5	13.5
256652	2007 <i>WW</i> ₅₉		5 6.4 330°25	2°8/ 5.3 17			396272	2014 <i>CY</i> ₁₈		5 6.4 351°03	7°4/ 10.2 16		
4 1	15 18.81	-11 7.8	1.218	2.089	17.6	20.0	4 1	15 21.69	-33 24.0	1.813	2.599	16.3	20.1
4 11	15 15.35	-11 4.0	1.140	2.074	13.5	19.6	4 11	15 17.09	-34 38.8	1.728	2.594	13.7	19.9
4 21	15 8.72	-10 57.3	1.080	2.060	8.6	19.3	4 21	15 9.64	-35 37.9	1.664	2.589	10.9	19.8
5 1	14 59.71	-10 51.3	1.043	2.047	3.8	19.0	5 1	15 0.03	-36 16.7	1.623	2.585	8.4	19.6
5 11	14 49.64	-10 50.3	1.030	2.034	4.4	19.0	5 11	14 49.45	-36 32.7	1.607	2.582	7.4	19.5
5 21	14 40.05	-10 58.4	1.040	2.022	9.6	19.2	5 21	14 39.23	-36 27.0	1.616	2.579	8.7	19.6
5 31	14 32.41	-11 18.9	1.071	2.012	14.8	19.5	5 31	14 30.69	-36 4.3	1.649	2.577	11.3	19.7
6 10	14 27.73	-11 53.5	1.121	2.002	19.4	19.7	6 10	14 24.79	-35 32.1	1.703	2.576	14.2	19.9
406347	2007 <i>RH</i> ₁₂₇		5 6.4 158°11	0°9/ 6.9 16			201930	2004 <i>DR</i> ₂₀		5 6.4 34°70	5°0/ 2.7 18		
4 1	15 23.75	-20 26.0	1.829	2.654	14.7	22.4	4 1	15 16.47	- 4 51.9	1.936	2.788	12.9	19.6
4 11	15 17.94	-20 16.9	1.752	2.660	11.3	22.1	4 11	15 12.18	- 3 59.0	1.871	2.793	9.9	19.4
4 21	15 9.74	-19 57.0	1.698	2.666	7.2	21.9	4 21	15 6.00	- 3 7.4	1.829	2.797	6.9	19.3
5 1	14 59.91	-19 27.2	1.670	2.672	2.9	21.6	5 1	14 58.58	- 2 22.0	1.814	2.802	5.0	19.2
5 11	14 49.56	-18 50.6	1.669	2.676	2.1	21.6	5 11	14 50.79	- 1 47.9	1.825	2.807	6.0	19.2
5 21	14 39.80	-18 11.7	1.696	2.680	6.4	21.9	5 21	14 43.50	- 1 28.7	1.862	2.812	8.8	19.4
5 31	14 31.64	-17 35.7	1.750	2.684	10.4	22.1	5 31	14 37.49	- 1 26.2	1.924	2.817	11.8	19.6
6 10	14 25.78	-17 7.2	1.826	2.687	14.0	22.4	6 10	14 33.32	- 1 40.3	2.006	2.823	14.5	19.8
5418	<i>Joyce</i>		5 6.4 150°94	4°5/ 1.4 18 R			399421	2001 <i>WO</i> ₉₂		5 6.4 232°67	0°3/ 6.6 16		
4 1	15 16.38	- 1 53.0	2.958	3.791	9.5	18.9	4 1	15 22.94	-19 26.0	1.696	2.529	15.3	22.4
4 11	15 11.43	- 0 46.6	2.894	3.801	7.4	18.7	4 11	15 17.73	-19 6.7	1.604	2.518	11.8	22.1
4 21	15 5.22	+ 0 17.7	2.857	3.811	5.4	18.6	4 21	15 9.86	-18 35.5	1.535	2.506	7.5	21.9
5 1	14 58.23	+ 1 15.8	2.848	3.821	4.5	18.6	5 1	15 0.07	-17 53.8	1.491	2.494	2.8	21.5
5 11	14 51.03	+ 2 3.9	2.868	3.830	5.3	18.6	5 11	14 49.48	-17 5.5	1.473	2.481	2.2	21.5
5 21	14 44.18	+ 2 39.4	2.916	3.838	7.2	18.8	5 21	14 39.33	-16 15.8	1.483	2.467	7.1	21.7
5 31	14 38.21	+ 3 0.7	2.990	3.846	9.2	18.9	5 31	14 30.78	-15 31.0	1.519	2.453	11.7	22.0
6 10	14 33.50	+ 3 7.7	3.087	3.853	11.1	19.1	6 10	14 24.68	-14 56.4	1.576	2.438	15.7	22.2
499583	2010 <i>TG</i> ₃₅		5 6.4 253°47	0°2/ 6.5 17			211390	2002 <i>UG</i> ₃₄		5 6.4 88°95	1°4/ 6.3 18		
4 1	15 21.62	-19 16.5	1.814	2.646	14.5	22.3	4 1	15 39.54	- 8 9.5	1.078	1.924	21.2	19.6
4 11	15 16.62	-18 54.5	1.715	2.628	11.2	22.1	4 11	15 31.55	- 9 36.2	1.010	1.931	16.3	19.3
4 21	15 9.13	-18 21.0	1.638	2.609	7.1	21.8	4 21	15 19.21	-11 12.3	0.963	1.937	10.4	19.0
5 1	14 59.78	-17 37.5	1.586	2.590	2.6	21.5	5 1	15 3.55	-12 55.3	0.939	1.943	3.9	18.7
5 11	14 49.63	-16 47.5	1.562	2.570	2.2	21.4	5 11	14 46.56	-14 40.4	0.942	1.949	3.6	18.7
5 21	14 39.80	-15 56.2	1.566	2.549	6.9	21.6	5 21	14 30.51	-16 22.7	0.972	1.955	10.0	19.0
5 31	14 31.42	-15 9.5	1.595	2.528	11.4	21.8	5 31	14 17.40	-17 59.9	1.025	1.961	15.9	19.4
6 10	14 25.32	-14 32.7	1.646	2.506	15.3	22.0	6 10	14 8.44	-19 32.8	1.098	1.966	20.6	19.7
278322	2007 <i>HT</i> ₄₆		5 6.4 315°71	1°9/ 5.5 16			488323	2016 <i>UM</i> ₁₃₀		5 6.4 216°42	0°4/ 6.7 18		
4 1	15 19.17	-12 35.6	1.476	2.335	15.8	20.3	4 1	15 16.14	-18 51.2	2.873	3.693	10.1	21.8
4 11	15 15.46	-12 33.1	1.371	2.299	12.2	20.0	4 11	15 11.52	-18 44.2	2.783	3.690	7.6	21.6
4 21	15 8.81	-12 26.4	1.286	2.264	7.8	19.7	4 21	15 5.44	-18 30.9	2.718	3.687	4.9	21.4
5 1	14 59.81	-12 17.9	1.225	2.228	3.1	19.3	5 1	14 58.39	-18 12.6	2.681	3.683	1.8	21.2
5 11	14 49.51	-12 11.4	1.189	2.194	3.6	19.2	5 11	14 50.99	-17 50.9	2.673	3.680	1.4	21.2
5 21	14 39.29	-12 10.6	1.178	2.159	8.8	19.4	5 21	14 43.87	-17 28.4	2.694	3.676	4.4	21.4
5 31	14 30.55	-12 19.8	1.189	2.126	14.0	19.6	5 31	14 37.63	-17 7.8	2.742	3.672	7.3	21.5
6 10	14 24.43	-12 41.9	1.221	2.093	18.7	19.8	6 10	14 32.75	-16 51.5	2.816	3.668	9.8	21.7
62036	2000 <i>RJ</i> ₆₂		5 6.4 296°85	3°3/ 4.4 18			89679	2001 <i>YW</i> ₄₇		5 6.4 205°10	2°6/ 4.3 18		
4 1	15 19.84	- 6 17.6	2.241	3.080	11.9	17.9	4 1	15 18.12	- 8 40.1	2.633	3.468	10.4	19.6
4 11	15 14.61	- 6 13.1	2.156	3.072	9.0	17.7	4 11	15 13.04	- 8 18.8	2.549	3.464	7.9	19.4
4 21	15 7.51	- 6 10.3	2.094	3.063	6.0	17.5	4 21	15 6.40	- 7 56.6	2.490	3.460	5.1	19.2
5 1	14 59.12	- 6 11.8	2.060	3.055	3.6	17.3	5 1	14 58.74	- 7 36.0	2.458	3.456	2.8	19.0
5 11	14 50.24	- 6 20.2	2.053	3.047	4.2	17.4	5 11	14 50.70	- 7 19.8	2.456	3.451	3.4	19.1
5 21	14 41.68	- 6 37.1	2.075	3.038	7.1	17.5	5 21	14 42.98	- 7 10.4	2.483	3.446	6.1	19.2
5 31	14 34.25	- 7 3.7	2.123	3.030	10.2	17.7	5 31	14 36.21	- 7 9.7	2.536	3.440	8.9	19.4
6 10	14 28.55	- 7 40.4	2.194	3.022	13.1	17.9	6 10	14 30.90	- 7 18.6	2.613	3.435	11.4	19.6
6811	<i>Kashcheev</i>		5 6.4 298°90	0°0/ 6.1 18			75497	1999 <i>XW</i> ₁₈₃		5 6.4 260°24	2°4/ 7.8 18		

EPHEMERIDES

5 6.4

5 6.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
361085	2006 <i>BW</i> ₁₃₃		5 6.4 58°85'	6°1/ 3.1 18			422779	2001 <i>VX</i> ₅₅		5 6.4 150°42'	2°7/ 8.1 15		
4 1	15 20.55	- 7 0.4	1.208	2.079	17.8	20.8	4 1	15 25.53	-24 5.8	2.199	3.000	13.4	21.5
4 11	15 16.02	- 5 46.6	1.163	2.096	13.5	20.6	4 11	15 19.06	-24 33.5	2.119	3.009	10.4	21.3
4 21	15 8.68	- 4 32.4	1.139	2.113	9.1	20.4	4 21	15 10.41	-24 51.1	2.062	3.017	7.1	21.1
5 1	14 59.57	- 3 26.6	1.138	2.131	6.2	20.3	5 1	15 0.24	-24 57.4	2.031	3.025	3.9	20.9
5 11	14 50.10	- 2 37.2	1.161	2.149	7.5	20.4	5 11	14 49.53	-24 53.0	2.030	3.032	2.9	20.8
5 21	14 41.63	- 2 9.8	1.207	2.167	11.3	20.7	5 21	14 39.30	-24 40.4	2.057	3.039	5.7	21.0
5 31	14 35.23	- 2 6.5	1.274	2.186	15.3	21.0	5 31	14 30.47	-24 23.4	2.112	3.044	9.0	21.2
6 10	14 31.54	- 2 25.9	1.360	2.204	18.8	21.2	6 10	14 23.71	-24 6.4	2.191	3.050	12.0	21.5
248317	2005 <i>OL</i> ₂₇		5 6.4 253°98'	0°9/ 5.6 18			359710	2011 <i>TE</i> ₄		5 6.4 253°06'	1°8/ 7.5 16		
4 1	15 15.88	-16 37.5	2.345	3.179	11.6	20.7	4 1	15 22.48	-22 39.9	1.528	2.362	16.7	21.7
4 11	15 11.61	-15 53.2	2.255	3.172	8.7	20.5	4 11	15 17.77	-22 30.1	1.437	2.349	13.0	21.4
4 21	15 5.62	-15 0.9	2.190	3.164	5.4	20.2	4 21	15 10.11	-22 5.0	1.367	2.335	8.7	21.1
5 1	14 58.49	-14 3.3	2.152	3.156	1.9	20.0	5 1	15 0.26	-21 24.6	1.321	2.321	3.9	20.8
5 11	14 50.94	-13 4.6	2.143	3.148	2.2	20.0	5 11	14 49.47	-20 32.2	1.300	2.307	2.6	20.7
5 21	14 43.75	-12 9.0	2.163	3.140	5.8	20.2	5 21	14 39.13	-19 33.5	1.306	2.292	7.5	20.9
5 31	14 37.62	-11 20.9	2.209	3.132	9.1	20.4	5 31	14 30.58	-18 36.4	1.335	2.277	12.3	21.2
6 10	14 33.11	-10 43.6	2.278	3.124	12.1	20.6	6 10	14 24.77	-17 48.0	1.386	2.262	16.7	21.4
431371	2007 <i>EH</i> ₁₇		5 6.4 15°08'	8°8/11.0 17			48764	1997 <i>JJ</i> ₁₀		5 6.4 174°28'	4°6/28.9 18		
4 1	15 25.23	-35 57.8	1.647	2.424	18.1	20.7	4 1	15 10.53	+ 9 57.3	4.853	5.658	6.5	19.2
4 11	15 20.10	-37 17.3	1.570	2.425	15.4	20.5	4 11	15 6.74	+10 27.4	4.790	5.659	5.5	19.1
4 21	15 11.70	-38 17.3	1.512	2.427	12.5	20.4	4 21	15 2.21	+10 51.5	4.753	5.660	4.8	19.1
5 1	15 0.83	-38 52.0	1.476	2.429	9.9	20.2	5 1	14 57.22	+11 7.7	4.743	5.660	4.6	19.0
5 11	14 48.90	-38 58.3	1.464	2.431	8.8	20.2	5 11	14 52.10	+11 14.3	4.760	5.661	5.0	19.1
5 21	14 37.50	-38 37.9	1.476	2.434	9.9	20.2	5 21	14 47.15	+11 10.5	4.804	5.661	5.9	19.1
5 31	14 28.16	-37 57.2	1.512	2.437	12.4	20.4	5 31	14 42.68	+10 56.2	4.872	5.662	6.9	19.2
6 10	14 21.89	-37 5.8	1.568	2.440	15.3	20.6	6 10	14 38.94	+10 31.8	4.962	5.662	8.0	19.3
487570	2014 <i>WU</i> ₃₆₄		5 6.4 177°92'	5°9/26.1 18			457557	2008 <i>YG</i> ₉₀		5 6.4 141°08'	2°1/ 7.8 16		
4 1	15 11.34	+18 13.3	4.802	5.572	7.1	20.7	4 1	15 24.23	-24 13.2	1.713	2.532	15.8	22.4
4 11	15 7.34	+18 47.5	4.750	5.573	6.4	20.6	4 11	15 18.48	-23 58.5	1.641	2.543	12.3	22.2
4 21	15 2.57	+19 13.0	4.721	5.573	6.0	20.6	4 21	15 10.18	-23 28.5	1.589	2.553	8.2	22.0
5 1	14 57.33	+19 27.5	4.718	5.573	6.0	20.6	5 1	15 0.17	-22 44.0	1.563	2.562	3.9	21.8
5 11	14 51.95	+19 29.5	4.740	5.573	6.4	20.6	5 11	14 49.65	-21 48.5	1.565	2.571	2.6	21.7
5 21	14 46.77	+19 18.4	4.786	5.573	7.1	20.7	5 21	14 39.85	-20 47.7	1.593	2.579	6.5	22.0
5 31	14 42.11	+18 54.5	4.854	5.573	7.9	20.7	5 31	14 31.83	-19 48.6	1.648	2.586	10.7	22.2
6 10	14 38.22	+18 18.6	4.943	5.573	8.7	20.8	6 10	14 26.28	-18 57.4	1.725	2.593	14.3	22.5
439126	2011 <i>SU</i> ₁₉₂		5 6.4 220°90'	0°6/ 5.9 18			344832	2004 <i>FY</i> ₇₁		5 6.4 179°09'	0°8/ 5.9 17		
4 1	15 16.82	-16 45.4	2.438	3.269	11.3	21.9	4 1	15 17.49	-16 5.7	2.189	3.025	12.2	21.4
4 11	15 12.25	-16 15.5	2.350	3.264	8.5	21.7	4 11	15 12.90	-15 41.8	2.108	3.025	9.2	21.2
4 21	15 6.00	-15 38.6	2.286	3.259	5.3	21.5	4 21	15 6.48	-15 11.2	2.051	3.025	5.7	21.0
5 1	14 58.62	-14 56.9	2.250	3.254	1.9	21.3	5 1	14 58.83	-14 36.2	2.021	3.025	2.0	20.8
5 11	14 50.84	-14 13.6	2.242	3.248	2.0	21.2	5 11	14 50.75	-14 0.2	2.019	3.025	2.1	20.8
5 21	14 43.41	-13 32.4	2.263	3.243	5.4	21.5	5 21	14 43.10	-13 26.8	2.045	3.025	5.9	21.0
5 31	14 37.02	-12 56.9	2.312	3.237	8.7	21.7	5 31	14 36.62	-12 59.7	2.097	3.025	9.3	21.2
6 10	14 32.22	-12 30.1	2.383	3.231	11.6	21.8	6 10	14 31.88	-12 41.7	2.173	3.025	12.4	21.4
414226	2008 <i>FX</i> ₂₈		5 6.4 85°18'	0°3/ 6.6 17			73387	2002 <i>LV</i> ₁₁		5 6.4 289°42'	3°4/ 4.1 18		
4 1	15 21.67	-19 34.9	1.592	2.431	15.9	21.5	4 1	15 17.81	- 9 27.8	1.870	2.721	13.3	19.2
4 11	15 16.53	-19 11.6	1.530	2.446	12.0	21.3	4 11	15 13.52	- 8 48.6	1.782	2.706	10.1	19.0
4 21	15 8.89	-18 36.6	1.490	2.462	7.6	21.1	4 21	15 7.08	- 8 6.2	1.717	2.691	6.6	18.7
5 1	14 59.66	-17 52.3	1.475	2.478	2.8	20.8	5 1	14 59.10	- 7 24.7	1.678	2.676	3.7	18.5
5 11	14 50.01	-17 3.3	1.486	2.493	2.2	20.8	5 11	14 50.50	- 6 49.1	1.666	2.661	4.6	18.5
5 21	14 41.14	-16 15.3	1.524	2.509	6.9	21.1	5 21	14 42.26	- 6 23.6	1.680	2.646	8.2	18.7
5 31	14 34.05	-15 33.9	1.587	2.524	11.1	21.4	5 31	14 35.30	- 6 11.7	1.718	2.631	11.9	18.9
6 10	14 29.37	-15 3.5	1.672	2.539	14.7	21.7	6 10	14 30.33	- 6 15.1	1.778	2.617	15.2	19.1
457369	2008 <i>SU</i> ₃₀₃		5 6.4 262°16'	5°1/10.3 18			274363	2008 <i>RZ</i> ₆₉		5 6.4 271°19'	3°2/ 3.9 17		
4 1	15 22.03	-33 14.9	2.267	3.038	13.9	21.5	4 1	15 17.39	-11 31.8	1.867	2.717	13.4	20.8
4 11	15 16.81	-33 24.3	2.153	3.014	11.6	21.3	4 11	15 13.18	-10 31.5	1.780	2.704	10.1	20.6
4 21	15 9.22	-33 16.8	2.061	2.990	8.8	21.0	4 21	15 6.84	- 9 24.5	1.716	2.691	6.5	20.3
5 1	14 59.88	-32 49.9	1.993	2.965	6.3	20.8	5 1	14 59.00	- 8 15.7	1.678	2.677	3.5	20.1
5 11	14 49.73	-32 3.8	1.952	2.939	5.1	20.7	5 11	14 50.59	- 7 11.1	1.667	2.664	4.5	20.1
5 21	14 39.85	-31 1.5	1.939	2.913	6.7	20.8	5 21	14 42.57	- 6 16.5	1.683	2.650	8.2	20.3
5 31	14 31.30	-29 48.7	1.953	2.886	9.6	20.9	5 31	14 35.85	- 5 36.6	1.724	2.636	11.9	20.5
6 10	14 24.85	-28 32.7	1.991	2.859	12.7	21.0	6 10	14 31.11	- 5 14.1	1.786	2.622	15.3	20.7
19110	1981 <i>EF</i> ₂₉		5 6.4 307°39'	2°3/ 8.0 17 R			458337	2010 <i>VU</i> ₁₃₉		5 6.4 184°35'	13°7/10.4 18		
4 1	15 17.39	-24 5.7	2.102	2.921	13.3	18.9	4 1	15 39.84	-39 23.7	1.331	2.090	22.5	20.9
4 11	15 13.16	-24 8.9	2.006	2.908	10.4	18.7	4 11	15 33.01	-41 56.1	1.256	2.090	19.7	20.7
4 21	15 6.83	-24 0.6	1.933	2.895	7.1	18.5	4 21	15 21.03	-44 9.0	1.199	2.090	16.9	20.5
5 1	14 58.99	-23 40.5	1.885	2.882	3.6	18.2	5 1	15 4.58	-45 47.9	1.163	2.090	14.6	20.3
5 11	14 50.54	-23 10.6	1.865	2.869	2.6	18.1	5 11	14 45.66	-46 41.7	1.149	2.089	13.7	20.3
5 21	14 42.40	-22 34.2	1.872	2.857	5.7	18.3	5 21	14 27.11	-46 47.9	1.158	2.088	14.8	20.3
5 31	14 35.52	-21 56.0	1.904	2.845	9.3	18.5	5 31	14 11.72	-46 14.6	1.187	2.086	17.2	20.5
6 10	14 30.56	-21 20.9	1.961	2.833	12.6	18.7	6 10	14 1.30	-45 17.7	1.235	2.083	20.1	20.7
167209	2003 <i>UX</i> ₁₃		5 6.4 140°59'	1°4/ 7.5 18			497444	2005 <i>YW</i> ₂₀		5 6.4 174°3			

EPHEMERIDES

5 6.4

5 6.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
151265	2002 <i>AO</i> ₁₁₄		5 6.4 48°32	1.7/ 5.2	17		323214	2003 <i>SE</i> ₃₈		5 6.4 206°41	3°8/ 9.3	17	
4 1	15 17.17	-12 52.2	2.108	2.951	12.3	20.1	4 1	15 23.93	-29 27.8	2.078	2.867	14.4	21.8
4 11	15 12.64	-12 30.5	2.039	2.960	9.2	19.9	4 11	15 18.17	-29 25.3	1.983	2.861	11.6	21.6
4 21	15 6.29	-12 4.8	1.993	2.968	5.8	19.7	4 21	15 10.02	-29 6.1	1.909	2.855	8.4	21.4
5 1	14 58.75	-11 37.8	1.974	2.977	2.4	19.5	5 1	15 0.18	-28 29.3	1.861	2.847	5.2	21.2
5 11	14 50.87	-11 12.9	1.983	2.986	2.8	19.6	5 11	14 49.69	-27 36.3	1.841	2.839	3.9	21.1
5 21	14 43.45	-10 53.3	2.019	2.995	6.3	19.8	5 21	14 39.67	-26 31.6	1.849	2.830	6.2	21.2
5 31	14 37.26	-10 41.9	2.081	3.004	9.6	20.0	5 31	14 31.14	-25 21.6	1.884	2.820	9.7	21.4
6 10	14 32.82	-10 40.4	2.166	3.013	12.6	20.2	6 10	14 24.84	-24 13.3	1.943	2.809	13.0	21.5
11209	1999 <i>GP</i> ₁₈		5 6.4 327°76	5°5/ 2.6	18		297382	2000 <i>QC</i>		5 6.4 232°42	2°8/ 8.9	18	
4 1	15 17.68	- 2 13.2	2.025	2.872	12.6	17.5	4 1	15 18.18	-27 33.6	2.584	3.378	11.8	20.9
4 11	15 13.11	- 1 32.8	1.953	2.869	9.8	17.3	4 11	15 13.37	-27 27.3	2.486	3.369	9.4	20.7
4 21	15 6.65	- 0 55.9	1.904	2.866	7.1	17.1	4 21	15 6.79	-27 8.6	2.410	3.360	6.6	20.5
5 1	14 58.91	- 0 27.2	1.880	2.863	5.5	17.0	5 1	14 58.98	-26 37.4	2.362	3.351	3.9	20.4
5 11	14 50.74	- 0 11.1	1.884	2.860	6.4	17.0	5 11	14 50.70	-25 55.4	2.341	3.342	2.9	20.3
5 21	14 43.00	- 0 10.2	1.914	2.857	9.0	17.2	5 21	14 42.75	-25 5.8	2.350	3.332	5.0	20.4
5 31	14 36.48	- 0 25.9	1.968	2.855	11.9	17.4	5 31	14 35.88	-24 12.9	2.385	3.322	7.9	20.6
6 10	14 31.76	- 0 57.5	2.043	2.852	14.6	17.5	6 10	14 30.66	-23 21.6	2.446	3.311	10.7	20.7
495871	2004 <i>RP</i> ₅₂		5 6.4 305°23	2°3/ 5.3	17		428022	2006 <i>BS</i> ₂₃₁		5 6.4 162°38	1°6/ 5.3	17	
4 1	15 18.57	-14 40.3	1.225	2.093	17.8	21.5	4 1	15 20.37	-13 17.4	2.134	2.970	12.5	22.2
4 11	15 15.58	-14 6.1	1.124	2.058	13.8	21.1	4 11	15 15.07	-12 53.5	2.058	2.974	9.4	22.0
4 21	15 9.24	-13 19.5	1.043	2.023	8.8	20.7	4 21	15 7.85	-12 25.0	2.005	2.978	5.9	21.7
5 1	15 0.14	-12 23.9	0.983	1.987	3.5	20.3	5 1	14 59.35	-11 54.5	1.979	2.982	2.4	21.5
5 11	14 49.52	-11 25.8	0.947	1.952	4.4	20.2	5 11	14 50.44	-11 25.4	1.982	2.985	2.8	21.6
5 21	14 38.98	-10 33.4	0.934	1.917	10.4	20.4	5 21	14 41.98	-11 1.1	2.012	2.987	6.4	21.8
5 31	14 30.22	- 9 55.4	0.942	1.882	16.4	20.6	5 31	14 34.78	-10 44.9	2.070	2.989	9.8	22.0
6 10	14 24.54	- 9 38.0	0.968	1.848	21.8	20.8	6 10	14 29.42	-10 38.7	2.150	2.991	12.9	22.2
134312	4797 <i>P-L</i>		5 6.4 303°96	3°7/ 3.5	18		297065	2010 <i>JA</i> ₃₆		5 6.4 291°25	3°2/ 3.7	17	
4 1	15 15.66	-10 27.2	1.806	2.662	13.5	19.5	4 1	15 15.61	-11 40.5	1.969	2.819	12.8	20.5
4 11	15 11.95	- 9 21.9	1.720	2.647	10.2	19.2	4 11	15 11.72	-10 28.8	1.883	2.808	9.6	20.2
4 21	15 6.11	- 8 10.4	1.657	2.632	6.7	19.0	4 21	15 5.87	- 9 10.1	1.821	2.797	6.2	20.0
5 1	14 58.77	- 6 58.3	1.619	2.617	3.9	18.8	5 1	14 58.67	- 7 49.6	1.786	2.785	3.4	19.8
5 11	14 50.84	- 5 51.8	1.608	2.602	5.0	18.8	5 11	14 50.99	- 6 33.5	1.779	2.774	4.5	19.9
5 21	14 43.29	- 4 57.1	1.624	2.588	8.6	19.0	5 21	14 43.69	- 5 27.7	1.798	2.762	7.9	20.0
5 31	14 37.05	- 4 18.9	1.663	2.573	12.4	19.2	5 31	14 37.61	- 4 37.2	1.843	2.751	11.5	20.2
6 10	14 32.79	- 3 59.4	1.723	2.560	15.8	19.4	6 10	14 33.36	- 4 4.6	1.909	2.740	14.6	20.4
382125	2011 <i>HE</i> ₉₁		5 6.4 154°95	2°1/ 4.9	17		284572	2007 <i>TE</i> ₅₇		5 6.4 190°23	0°3/ 6.2	17	
4 1	15 19.24	-12 22.5	2.050	2.892	12.7	21.2	4 1	15 17.73	-17 42.7	2.265	3.096	12.0	21.8
4 11	15 14.28	-11 53.5	1.975	2.895	9.6	21.0	4 11	15 13.06	-17 14.7	2.182	3.095	9.1	21.6
4 21	15 7.37	-11 20.3	1.923	2.897	6.0	20.8	4 21	15 6.58	-16 38.7	2.122	3.094	5.7	21.3
5 1	14 59.17	-10 45.9	1.898	2.900	2.6	20.6	5 1	14 58.90	-15 56.9	2.090	3.093	2.0	21.1
5 11	14 50.54	-10 14.1	1.901	2.902	3.2	20.6	5 11	14 50.81	-15 12.7	2.086	3.092	1.9	21.1
5 21	14 42.38	- 9 48.5	1.932	2.905	6.7	20.9	5 21	14 43.13	-14 30.0	2.110	3.091	5.6	21.3
5 31	14 35.50	- 9 32.5	1.988	2.907	10.2	21.1	5 31	14 36.59	-13 52.9	2.161	3.090	9.0	21.5
6 10	14 30.48	- 9 27.8	2.067	2.908	13.3	21.3	6 10	14 31.78	-13 24.5	2.236	3.088	12.1	21.7
382109	2011 <i>HB</i> ₁₅		5 6.4 173°64	0°6/ 6.1	17		497300	2005 <i>SL</i> ₂₃₄		5 6.4 184°65	1°4/ 5.3	17	
4 1	15 21.11	-15 38.1	2.046	2.879	13.1	21.3	4 1	15 20.46	-14 21.2	2.510	3.336	11.1	23.8
4 11	15 15.77	-15 32.6	1.965	2.880	9.9	21.1	4 11	15 14.89	-13 45.6	2.425	3.337	8.4	23.6
4 21	15 8.37	-15 21.3	1.909	2.881	6.2	20.9	4 21	15 7.63	-13 4.5	2.365	3.336	5.2	23.4
5 1	14 59.54	-15 5.9	1.878	2.882	2.2	20.6	5 1	14 59.26	-12 20.4	2.333	3.335	2.1	23.2
5 11	14 50.22	-14 48.9	1.876	2.883	2.1	20.6	5 11	14 50.52	-11 36.7	2.330	3.333	2.5	23.2
5 21	14 41.34	-14 33.5	1.902	2.883	6.1	20.9	5 21	14 42.16	-10 57.0	2.358	3.331	5.7	23.4
5 31	14 33.79	-14 22.9	1.955	2.883	9.8	21.1	5 31	14 34.87	-10 24.6	2.412	3.327	8.9	23.6
6 10	14 28.19	-14 19.8	2.030	2.883	13.1	21.3	6 10	14 29.19	-10 2.0	2.491	3.322	11.6	23.8
7297	1992 <i>UG</i>		5 6.4 211°33	1°8/ 5.0	18		501508	2014 <i>DU</i> ₁₀₉		5 6.4 145°15	4°4/ 2.3	18	
4 1	15 20.81	-12 13.0	2.457	3.287	11.3	18.6	4 1	15 16.51	- 3 55.9	2.586	3.425	10.5	21.9
4 11	15 15.25	-11 47.6	2.365	3.279	8.5	18.4	4 11	15 11.78	- 2 59.4	2.520	3.433	8.0	21.7
4 21	15 7.92	-11 18.4	2.298	3.270	5.4	18.2	4 21	15 5.60	- 2 4.1	2.478	3.440	5.7	21.6
5 1	14 59.37	-10 47.7	2.259	3.260	2.3	18.0	5 1	14 58.51	- 1 14.4	2.465	3.447	4.4	21.5
5 11	14 50.36	-10 18.8	2.249	3.250	2.9	18.0	5 11	14 51.16	- 0 34.0	2.480	3.454	5.2	21.6
5 21	14 41.67	- 9 54.7	2.268	3.239	6.1	18.2	5 21	14 44.20	- 0 5.9	2.522	3.460	7.4	21.7
5 31	14 34.03	- 9 38.2	2.315	3.227	9.3	18.4	5 31	14 38.21	+ 0 8.2	2.590	3.466	9.8	21.9
6 10	14 28.02	- 9 31.4	2.385	3.215	12.1	18.6	6 10	14 33.65	+ 0 7.9	2.681	3.472	12.0	22.1
394242	2006 <i>TU</i> ₁₃		5 6.4 140°90	0°6/ 6.9	18		320279	2007 <i>RS</i> ₁₂₇		5 6.4 38°44	1°8/ 7.5	17	
4 1	15 20.99	-18 47.3	3.047	3.854	9.9	22.0	4 1	15 20.70	-21 1.7	1.620	2.456	15.8	19.7
4 11	15 15.00	-18 56.2	2.968	3.867	7.5	21.8	4 11	15 15.87	-21 21.0	1.560	2.473	12.1	19.5
4 21	15 7.57	-18 59.7	2.914	3.880	4.8	21.7	4 21	15 8.57	-21 29.5	1.522	2.491	7.9	19.3
5 1	14 59.20	-18 58.2	2.890	3.892	1.9	21.5	5 1	14 59.63	-21 27.5	1.509	2.509	3.6	19.0
5 11	14 50.53	-18 53.0	2.896	3.903	1.4	21.5	5 11	14 50.24	-21 16.9	1.522	2.528	2.5	19.0
5 21	14 42.21	-18 45.9	2.933	3.914	4.2	21.7	5 21	14 41.57	-21 1.5	1.561	2.547	6.5	19.3
5 31	14 34.82	-18 39.1	2.998	3.924	6.9	21.9	5 31	14 34.62	-20 45.7	1.624	2.567	10.5	19.6
6 10	14 28.83	-18 34.8	3.089	3.934	9.3	22.0	6 10	14 30.07	-20 34.1	1.710	2.587	13.9	19.8
395986	2013 <i>BR</i> ₃₄		5 6.4 271°00	0°9/ 5.7	18		107781	2001 <i>FO</i> ₄₉		5 6.5 348°03	1°8/ 7.6	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
400508	2008 <i>KW</i> ₄₂		5 6.5 295°50	5°0/ 1.9 15			167536	2003 <i>YE</i> ₁₆₉		5 6.5 174°26	2°7/ 8.7 18		
4 1	15 14.97	- 3 1.4	2.376	3.221	11.0	21.3	4 1	15 20.41	-26 28.0	2.512	3.308	12.0	21.1
4 11	15 10.93	- 2 7.9	2.287	3.203	8.6	21.1	4 11	15 15.04	-26 31.4	2.424	3.310	9.5	20.9
4 21	15 5.26	- 1 15.5	2.223	3.185	6.3	20.9	4 21	15 7.83	-26 23.3	2.360	3.312	6.6	20.8
5 1	14 58.45	- 0 28.8	2.186	3.167	5.0	20.8	5 1	14 59.39	-26 3.5	2.322	3.313	3.8	20.6
5 11	14 51.19	+ 0 7.7	2.176	3.149	5.9	20.8	5 11	14 50.50	-25 33.5	2.313	3.314	2.8	20.5
5 21	14 44.20	+ 0 30.6	2.192	3.131	8.3	21.0	5 21	14 42.01	-24 56.2	2.333	3.315	5.1	20.7
5 31	14 38.18	+ 0 37.6	2.234	3.113	11.0	21.1	5 31	14 34.67	-24 15.8	2.380	3.315	8.0	20.8
6 10	14 33.66	+ 0 28.5	2.297	3.095	13.5	21.2	6 10	14 29.07	-23 36.6	2.452	3.314	10.8	21.0
128353	2004 <i>GK</i> ₃₉		5 6.5 267°53	1°2/ 5.8 17			136956	1998 <i>RV</i> ₆		5 6.5 316°62	3°6/ 8.2 17		
4 1	15 23.39	-15 31.8	1.535	2.381	16.0	19.7	4 1	15 19.56	-24 13.0	1.365	2.206	17.9	20.1
4 11	15 18.52	-15 11.5	1.436	2.358	12.3	19.4	4 11	15 16.05	-24 40.3	1.276	2.188	14.2	19.8
4 21	15 10.69	-14 41.9	1.358	2.334	7.8	19.1	4 21	15 9.34	-24 53.3	1.205	2.171	9.9	19.5
5 1	15 0.58	-14 5.4	1.305	2.309	2.9	18.7	5 1	15 0.15	-24 49.8	1.158	2.154	5.4	19.2
5 11	14 49.35	-13 26.2	1.278	2.284	3.1	18.6	5 11	14 49.78	-24 30.6	1.134	2.138	4.0	19.1
5 21	14 38.38	-12 49.8	1.277	2.258	8.4	18.9	5 21	14 39.77	-23 59.3	1.134	2.122	8.1	19.3
5 31	14 29.03	-12 22.1	1.300	2.231	13.5	19.1	5 31	14 31.66	-23 23.0	1.157	2.107	13.0	19.5
6 10	14 22.35	-12 7.9	1.343	2.205	18.0	19.3	6 10	14 26.54	-22 49.5	1.199	2.093	17.5	19.7
231775	1999 <i>XM</i> ₁₀		5 6.5 119°12	2°4/ 8.3 18			461510	2003 <i>RG</i> ₁₉		5 6.5 279°23	3°5/ 8.3 17		
4 1	15 22.73	-25 9.9	2.435	3.232	12.3	21.0	4 1	15 22.63	-25 18.0	1.575	2.398	16.7	21.7
4 11	15 16.66	-25 16.5	2.364	3.252	9.6	20.9	4 11	15 18.10	-25 34.6	1.474	2.376	13.4	21.4
4 21	15 8.75	-25 12.1	2.316	3.271	6.6	20.7	4 21	15 10.53	-25 36.3	1.393	2.354	9.4	21.1
5 1	14 59.67	-24 56.7	2.296	3.289	3.5	20.5	5 1	15 0.58	-25 21.0	1.336	2.331	5.2	20.8
5 11	14 50.25	-24 32.1	2.304	3.307	2.6	20.5	5 11	14 49.44	-24 49.4	1.304	2.307	3.8	20.6
5 21	14 41.36	-24 1.2	2.342	3.324	5.0	20.7	5 21	14 38.56	-24 5.5	1.298	2.284	7.6	20.8
5 31	14 33.75	-23 27.9	2.407	3.341	8.0	20.9	5 31	14 29.38	-23 16.1	1.316	2.260	12.3	21.0
6 10	14 27.95	-22 56.6	2.498	3.357	10.7	21.1	6 10	14 22.98	-22 29.3	1.356	2.237	16.7	21.2
349275	2007 <i>TY</i> ₂₉₃		5 6.5 50°11	0°3/ 6.7 17			306631	2000 <i>QO</i> ₂₁₆		5 6.5 285°16	0°9/ 5.9 17		
4 1	15 16.65	-20 48.5	2.091	2.921	12.9	20.8	4 1	15 21.02	-16 11.4	1.448	2.300	16.5	20.8
4 11	15 12.39	-20 6.6	2.010	2.922	9.8	20.6	4 11	15 16.83	-15 53.6	1.355	2.280	12.6	20.5
4 21	15 6.22	-19 13.0	1.953	2.924	6.3	20.4	4 21	15 9.67	-15 25.9	1.282	2.259	8.0	20.2
5 1	14 58.79	-18 10.2	1.922	2.925	2.3	20.1	5 1	15 0.24	-14 50.5	1.234	2.238	2.9	19.8
5 11	14 50.97	-17 2.6	1.919	2.927	1.8	20.1	5 11	14 49.75	-14 11.9	1.210	2.217	3.0	19.7
5 21	14 43.62	-15 55.5	1.944	2.928	5.7	20.3	5 21	14 39.58	-13 35.7	1.212	2.196	8.4	20.0
5 31	14 37.53	-14 54.3	1.996	2.930	9.4	20.6	5 31	14 31.13	-13 8.1	1.237	2.174	13.5	20.2
6 10	14 33.27	-14 3.3	2.071	2.932	12.6	20.8	6 10	14 25.38	-12 53.8	1.282	2.153	18.0	20.4
488865	2005 <i>SM</i> ₉₅		5 6.5 296°14	5°1/ 8.4 16			439141	2011 <i>UR</i> ₂₇		5 6.5 214°26	0°9/ 5.6 18		
4 1	15 24.80	-26 21.2	1.625	2.440	16.7	21.9	4 1	15 17.14	-14 42.5	2.815	3.642	10.0	22.1
4 11	15 19.98	-27 17.8	1.515	2.410	13.6	21.6	4 11	15 12.32	-14 20.0	2.723	3.635	7.6	21.9
4 21	15 11.91	-28 3.9	1.426	2.379	9.9	21.0	4 21	15 6.03	-13 52.8	2.656	3.628	4.7	21.7
5 1	15 1.14	-28 35.2	1.360	2.348	6.4	21.3	5 1	14 58.74	-13 22.9	2.618	3.621	1.8	21.5
5 11	14 48.82	-28 49.3	1.319	2.316	5.3	20.9	5 11	14 51.08	-12 52.7	2.609	3.613	2.0	21.5
5 21	14 36.45	-28 46.5	1.305	2.285	8.4	21.0	5 21	14 43.70	-12 25.1	2.629	3.605	5.0	21.7
5 31	14 25.66	-28 31.2	1.314	2.254	12.7	21.1	5 31	14 37.21	-12 2.8	2.677	3.596	7.9	21.9
6 10	14 17.73	-28 10.8	1.345	2.223	17.0	21.3	6 10	14 32.09	-11 47.9	2.749	3.587	10.5	22.0
305715	2009 <i>BU</i> ₁₈₈		5 6.5 335°27	3°2/ 3.8 17			312049	2007 <i>RF</i> ₂₄₅		5 6.5 146°46	1°3/ 5.6 16		
4 1	15 15.37	-10 29.8	2.066	2.916	12.3	20.7	4 1	15 23.67	-14 51.2	1.851	2.686	14.1	22.1
4 11	15 11.39	- 9 31.2	1.990	2.914	9.2	20.5	4 11	15 17.79	-14 26.9	1.780	2.696	10.6	21.9
4 21	15 5.59	- 8 28.3	1.937	2.911	6.0	20.3	4 21	15 9.67	-13 56.1	1.732	2.705	6.6	21.7
5 1	14 58.57	- 7 25.7	1.911	2.909	3.4	20.2	5 1	15 0.06	-13 21.3	1.710	2.714	2.5	21.4
5 11	14 51.16	- 6 28.5	1.912	2.907	4.3	20.2	5 11	14 50.01	-12 46.7	1.717	2.722	2.7	21.4
5 21	14 44.16	- 5 41.6	1.941	2.905	7.5	20.4	5 21	14 40.57	-12 16.3	1.752	2.729	6.9	21.7
5 31	14 38.34	- 5 8.4	1.995	2.903	10.7	20.6	5 31	14 32.66	-11 54.1	1.812	2.736	10.8	22.0
6 10	14 34.25	- 4 50.8	2.070	2.901	13.7	20.8	6 10	14 26.94	-11 42.9	1.895	2.742	14.1	22.2
259141	2002 <i>XQ</i> ₇₆		5 6.5 42°57	4°7/ 9.3 18			66713	1999 <i>TZ</i> ₉₉		5 6.5 168°46	4°3/ 2.8 18		
4 1	15 20.95	-28 24.7	1.429	2.253	18.1	19.3	4 1	15 18.37	- 5 28.1	2.312	3.153	11.5	19.9
4 11	15 16.58	-28 42.3	1.366	2.265	14.5	19.1	4 11	15 13.39	- 4 31.9	2.241	3.156	8.8	19.7
4 21	15 9.27	-28 40.4	1.323	2.278	10.3	18.9	4 21	15 6.73	- 3 35.8	2.194	3.159	6.1	19.6
5 1	14 59.96	-28 17.5	1.302	2.291	6.4	18.7	5 1	14 58.98	- 2 44.2	2.175	3.162	4.4	19.5
5 11	14 50.05	-27 36.1	1.305	2.305	4.8	18.6	5 11	14 50.90	- 2 1.8	2.184	3.164	5.3	19.5
5 21	14 40.96	-26 41.8	1.333	2.319	7.5	18.8	5 21	14 43.24	- 1 31.9	2.220	3.166	7.8	19.7
5 31	14 33.93	-25 42.8	1.385	2.333	11.5	19.1	5 31	14 36.69	- 1 16.6	2.282	3.167	10.5	19.9
6 10	14 29.71	-24 47.3	1.459	2.348	15.2	19.3	6 10	14 31.76	- 1 16.6	2.366	3.168	13.1	20.0
61009	2000 <i>KH</i> ₃₆		5 6.5 305°55	6°1/ 3.2 18			244253	2002 <i>CP</i> ₁₈₃		5 6.5 251°60	3°6/ 9.5 18		
4 1	15 18.36	- 7 7.6	1.244	2.117	17.3	18.6	4 1	15 18.92	-29 29.6	2.562	3.347	12.1	20.6
4 11	15 15.11	- 6 10.0	1.156	2.090	13.4	18.3	4 11	15 14.06	-29 39.0	2.460	3.335	9.8	20.4
4 21	15 8.74	- 5 7.9	1.087	2.063	9.2	18.0	4 21	15 7.32	-29 35.6	2.382	3.323	7.2	20.2
5 1	14 59.93	- 4 9.0	1.041	2.036	6.2	17.7	5 1	14 59.25	-29 18.6	2.329	3.311	4.6	20.0
5 11	14 49.93	- 3 22.2	1.019	2.010	7.7	17.7	5 11	14 50.64	-28 48.9	2.304	3.299	3.7	20.0
5 21	14 40.23	- 2 55.2	1.019	1.984	12.2	17.9	5 21	14 42.32	-28 9.0	2.308	3.286	5.4	20.0
5 31	14 32.31	- 2 53.2	1.039	1.959	17.2	18.1	5 31	14 35.09	-27 23.1	2.338	3.274	8.1	20.2
6 10	14 27.27	- 3 17.5	1.076	1.934	21.7	18.2	6 10	14 29.58	-26 36.3	2.394	3.261	10.9	20.3
2016	Heinemann		5 6.5 245°68	0°2/ 6.6 18			176540	2002 <i>AD</i> ₅₀		5 6.5 104°38	1°7/ 4		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
215655	2003 <i>UJ</i> ₁₅₆		5 6.5 237°58	2.1/ 4.9	17		172594	2003 <i>WL</i> ₈		5 6.5 113°52	4.0/ 8.9	17	
4 1	15 18.08	-13 2.2	2.086	2.928	12.5	21.1	4 1	15 23.60	-27 27.2	1.651	2.463	16.6	20.3
4 11	15 13.49	-12 23.3	2.001	2.921	9.4	20.9	4 11	15 18.31	-27 40.2	1.578	2.472	13.2	20.1
4 21	15 6.96	-11 38.8	1.940	2.915	5.9	20.6	4 21	15 10.28	-27 36.3	1.525	2.480	9.3	19.9
5 1	14 59.11	-10 52.0	1.906	2.908	2.6	20.4	5 1	15 0.36	-27 14.3	1.497	2.488	5.5	19.7
5 11	14 50.78	-10 7.2	1.900	2.901	3.2	20.4	5 11	14 49.83	-26 36.2	1.495	2.495	4.1	19.6
5 21	14 42.83	-9 28.6	1.921	2.894	6.8	20.6	5 21	14 39.98	-25 46.7	1.519	2.503	7.0	19.8
5 31	14 36.10	-9 0.2	1.968	2.886	10.3	20.8	5 31	14 31.98	-24 52.8	1.568	2.510	10.8	20.1
6 10	14 31.17	-8 44.2	2.038	2.879	13.5	21.0	6 10	14 26.60	-24 2.0	1.639	2.517	14.4	20.3
67924	2000 <i>WJ</i> ₁₁₅		5 6.5 118°97	3.1/ 8.5	18		64869	2001 <i>YG</i> ₆₀		5 6.5 299°14	5.5/ 9.4	18	
4 1	15 23.90	-26 14.9	1.694	2.508	16.2	19.8	4 1	15 20.67	-29 21.9	1.359	2.183	18.9	18.6
4 11	15 18.33	-26 11.3	1.624	2.521	12.7	19.6	4 11	15 17.03	-29 43.7	1.270	2.168	15.4	18.3
4 21	15 10.16	-25 51.1	1.575	2.533	8.7	19.4	4 21	15 10.03	-29 44.6	1.199	2.153	11.3	18.1
5 1	15 0.27	-25 14.5	1.551	2.545	4.7	19.2	5 1	15 0.44	-29 21.3	1.150	2.138	7.3	17.8
5 11	14 49.87	-24 24.3	1.553	2.557	3.3	19.1	5 11	14 49.67	-28 34.2	1.125	2.124	5.6	17.6
5 21	14 40.21	-23 26.0	1.583	2.568	6.6	19.3	5 21	14 39.38	-27 28.3	1.123	2.109	8.6	17.8
5 31	14 32.36	-22 26.7	1.638	2.579	10.5	19.6	5 31	14 31.15	-26 13.0	1.145	2.095	13.1	18.0
6 10	14 27.02	-21 33.1	1.715	2.589	14.1	19.8	6 10	14 26.07	-24 59.3	1.186	2.081	17.5	18.2
248370	2005 <i>QN</i> ₁₇₃		5 6.5 290°38	0.0/ 6.2	18		504543	2008 <i>SJ</i> ₁₂₅		5 6.5 215°88	0.5/ 6.1	17	
4 1	15 17.35	-18 8.3	2.209	3.041	12.3	20.9	4 1	15 18.66	-17 41.9	2.154	2.985	12.5	22.3
4 11	15 13.05	-17 51.4	2.105	3.019	9.4	20.6	4 11	15 13.91	-17 8.2	2.067	2.981	9.5	22.1
4 21	15 6.79	-17 26.1	2.025	2.996	6.0	20.4	4 21	15 7.23	-16 25.6	2.003	2.976	6.0	21.8
5 1	14 59.09	-16 54.0	1.970	2.974	2.2	20.1	5 1	14 59.23	-15 36.6	1.966	2.970	2.1	21.6
5 11	14 50.77	-16 18.0	1.944	2.951	1.8	20.0	5 11	14 50.76	-14 45.0	1.958	2.964	2.0	21.6
5 21	14 42.69	-15 41.7	1.945	2.928	5.8	20.2	5 21	14 42.69	-13 55.2	1.978	2.958	6.0	21.8
5 31	14 35.70	-15 9.2	1.973	2.905	9.6	20.4	5 31	14 35.84	-13 11.8	2.024	2.952	9.6	22.0
6 10	14 30.48	-14 44.4	2.024	2.883	12.9	20.6	6 10	14 30.80	-12 38.3	2.094	2.945	12.8	22.2
505616	2014 <i>EL</i> ₄₆		5 6.5 28°18	8.7/28.8	17		157857	1998 <i>UR</i> ₁		5 6.5 312°76	1.5/ 5.6	17	
4 1	15 15.44	+ 6 20.0	2.031	2.871	12.9	20.7	4 1	15 15.77	-17 29.2	1.139	2.012	18.5	19.9
4 11	15 11.37	+ 7 43.8	1.978	2.875	10.7	20.6	4 11	15 13.47	-16 42.5	1.051	1.987	14.2	19.5
4 21	15 5.54	+ 8 58.0	1.948	2.880	9.1	20.5	4 21	15 7.87	-15 38.0	0.982	1.963	9.1	19.1
5 1	14 58.57	+ 9 55.9	1.943	2.884	8.7	20.4	5 1	14 59.70	-14 19.6	0.935	1.940	3.3	18.7
5 11	14 51.28	+ 10 32.2	1.963	2.889	9.7	20.5	5 11	14 50.29	-12 55.2	0.911	1.917	3.8	18.7
5 21	14 44.48	+ 10 44.4	2.007	2.894	11.6	20.6	5 21	14 41.28	-11 35.2	0.909	1.894	10.0	18.9
5 31	14 38.88	+ 10 32.2	2.072	2.899	13.7	20.8	5 31	14 34.25	-10 30.1	0.927	1.873	15.9	19.2
6 10	14 34.99	+ 9 58.0	2.156	2.905	15.7	20.9	6 10	14 30.35	-9 47.5	0.963	1.853	21.1	19.4
58404	1995 <i>WJ</i> ₇		5 6.5 216°44	2.1/ 8.7	18		464437	2016 <i>BF</i> ₃₅		5 6.5 60°71	2.4/ 7.7	16	
4 1	15 17.70	-26 51.9	2.923	3.715	10.6	19.5	4 1	15 23.24	-22 32.3	1.347	2.188	18.1	21.2
4 11	15 12.80	-26 32.2	2.823	3.706	8.4	19.3	4 11	15 18.42	-22 45.8	1.282	2.196	14.1	20.9
4 21	15 6.35	-26 1.1	2.746	3.698	5.8	19.1	4 21	15 10.52	-22 44.9	1.237	2.205	9.3	20.7
5 1	14 58.87	-25 18.9	2.697	3.689	3.2	18.9	5 1	15 0.49	-22 29.2	1.214	2.214	4.4	20.4
5 11	14 51.02	-24 27.8	2.677	3.679	2.3	18.8	5 11	14 49.76	-22 1.4	1.217	2.223	3.0	20.4
5 21	14 43.47	-23 30.9	2.686	3.669	4.4	19.0	5 21	14 39.83	-21 26.8	1.244	2.232	7.6	20.7
5 31	14 36.87	-22 32.4	2.725	3.659	7.1	19.1	5 31	14 32.01	-20 52.0	1.295	2.241	12.3	20.9
6 10	14 31.71	-21 36.3	2.788	3.648	9.7	19.3	6 10	14 27.12	-20 23.8	1.366	2.251	16.3	21.2
39653	Carnera		5 6.5 183°05	5.3/ 9.5	18		190567	2000 <i>SL</i> ₁₃₇		5 6.5 300°25	4.4/ 8.7	16	
4 1	15 25.16	-29 59.8	2.016	2.803	14.9	19.5	4 1	15 21.47	-27 12.3	1.681	2.496	16.2	20.8
4 11	15 19.33	-30 51.5	1.930	2.803	12.1	19.3	4 11	15 17.29	-27 37.0	1.565	2.461	13.2	20.5
4 21	15 10.91	-31 29.5	1.866	2.803	9.1	19.1	4 21	15 10.13	-27 46.9	1.470	2.425	9.6	20.2
5 1	15 0.62	-31 50.7	1.827	2.803	6.3	18.9	5 1	15 0.52	-27 39.1	1.398	2.388	5.9	19.9
5 11	14 49.53	-31 54.2	1.815	2.803	5.3	18.9	5 11	14 49.56	-27 13.1	1.352	2.352	4.6	19.7
5 21	14 38.84	-31 41.8	1.830	2.802	7.1	19.0	5 21	14 38.63	-26 31.4	1.331	2.315	7.7	19.8
5 31	14 29.70	-31 18.0	1.871	2.802	10.1	19.1	5 31	14 29.19	-25 40.3	1.335	2.278	12.2	19.9
6 10	14 22.94	-30 49.1	1.935	2.801	13.1	19.3	6 10	14 22.40	-24 48.1	1.360	2.242	16.6	20.1
365820	2011 <i>SH</i> ₁₈₀		5 6.5 95°58	0.9/ 5.9	18		417225	2005 <i>YO</i> ₄₁		5 6.5 80°92	6.4/ 3.0	18	
4 1	15 23.67	-17 37.1	1.558	2.399	16.1	21.5	4 1	15 23.56	- 0 2.8	1.792	2.633	14.3	20.6
4 11	15 17.96	-16 51.0	1.503	2.422	12.0	21.3	4 11	15 17.49	+ 0 30.3	1.745	2.655	11.2	20.4
4 21	15 9.79	-15 54.2	1.470	2.444	7.5	21.1	4 21	15 9.34	+ 0 56.3	1.720	2.677	8.2	20.3
5 1	15 0.09	-14 50.8	1.463	2.467	2.6	20.9	5 1	14 59.93	+ 1 10.5	1.722	2.700	6.4	20.2
5 11	14 50.10	-13 46.7	1.483	2.488	2.7	20.9	5 11	14 50.28	+ 1 9.1	1.750	2.722	7.2	20.3
5 21	14 40.99	-12 48.4	1.529	2.510	7.3	21.3	5 21	14 41.39	+ 0 50.6	1.804	2.743	9.7	20.5
5 31	14 33.74	-12 1.5	1.601	2.530	11.5	21.5	5 31	14 34.07	+ 0 15.5	1.882	2.765	12.6	20.7
6 10	14 28.94	-11 29.4	1.694	2.550	15.1	21.8	6 10	14 28.86	- 0 34.4	1.981	2.786	15.1	20.9
22593	1998 <i>HH</i> ₁₀₇		5 6.5 274°90	4.7/ 3.5	18		370459	2003 <i>AV</i> ₄₁		5 6.5 55°36	9.3/30.7	18	
4 1	15 20.72	- 7 40.4	1.654	2.507	14.7	18.4	4 1	15 19.68	+ 2 15.8	1.421	2.279	16.3	19.5
4 11	15 16.14	- 6 49.9	1.560	2.484	11.3	18.1	4 11	15 14.94	+ 3 49.9	1.388	2.304	13.1	19.4
4 21	15 9.01	- 5 56.0	1.489	2.461	7.7	17.9	4 21	15 7.86	+ 5 13.3	1.377	2.328	10.4	19.3
5 1	14 59.97	- 5 4.3	1.442	2.437	4.9	17.6	5 1	14 59.40	+ 6 17.0	1.390	2.353	9.3	19.3
5 11	14 50.05	- 4 21.0	1.422	2.413	6.0	17.7	5 11	14 50.75	+ 6 54.5	1.426	2.378	10.5	19.4
5 21	14 40.44	- 3 51.9	1.427	2.388	9.9	17.8	5 21	14 42.99	+ 7 3.3	1.485	2.403	12.9	19.6
5 31	14 32.26	- 3 40.9	1.456	2.364	14.0	18.0	5 31	14 37.02	+ 6 44.4	1.565	2.429	15.6	19.9
6 10	14 26.39	- 3 49.8	1.505	2.339	17.8	18.2	6 10	14 33.36	+ 6 1.6	1.662	2.454	18.1	20.1
479399	2013 <i>YJ</i> ₂₉		5 6.5 255°90	0.8/ 5.9	18		470476	2008 <i>AS</i> ₁₁₀		5 6.5 117			

EPHEMERIDES

5 6.5

5 6.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
459500	2013 <i>CR</i> ₁₉₅		5 6.5 165°75	3°8/ 4.2 16			198215	2004 <i>TR</i> ₁₆₇		5 6.5 265°36	0°0/ 6.3 17		
4 1	15 23.26	-10 14.1	1.589	2.438	15.4	22.3	4 1	15 19.42	-18 38.6	1.878	2.713	14.0	21.3
4 11	15 17.82	-9 21.3	1.520	2.443	11.6	22.1	4 11	15 14.87	-18 19.6	1.787	2.703	10.7	21.1
4 21	15 9.86	-8 24.1	1.473	2.447	7.5	21.8	4 21	15 8.05	-17 50.6	1.719	2.692	6.8	20.8
5 1	15 0.21	-7 27.7	1.451	2.450	4.1	21.6	5 1	14 59.61	-17 13.4	1.677	2.681	2.5	20.5
5 11	14 50.02	-6 38.4	1.456	2.452	5.1	21.7	5 11	14 50.52	-16 31.5	1.662	2.669	2.0	20.5
5 21	14 40.49	-6 1.6	1.488	2.454	9.0	21.9	5 21	14 41.82	-15 49.5	1.674	2.658	6.5	20.7
5 31	14 32.66	-5 41.4	1.543	2.456	13.1	22.2	5 31	14 34.49	-15 12.4	1.712	2.647	10.6	21.0
6 10	14 27.24	-5 39.0	1.619	2.456	16.6	22.4	6 10	14 29.27	-14 44.6	1.772	2.635	14.2	21.2
187473	2006 <i>BJ</i> ₁₀₃		5 6.5 186°46	2°3/ 3.2 18			303337	2004 <i>TH</i> ₁₆₃		5 6.5 48°75	0°0/ 6.2 17		
4 1	15 9.82	-6 12.2	4.325	5.160	6.7	21.2	4 1	15 24.01	-16 22.5	1.372	2.221	17.3	20.0
4 11	15 6.38	-5 40.9	4.246	5.160	5.0	21.1	4 11	15 18.96	-16 33.4	1.302	2.224	13.2	19.8
4 21	15 2.12	-5 9.8	4.193	5.160	3.4	21.0	4 21	15 10.88	-16 36.7	1.252	2.227	8.4	19.5
5 1	14 57.34	-4 40.9	4.170	5.160	2.3	20.9	5 1	15 0.67	-16 33.6	1.226	2.230	3.0	19.2
5 11	14 52.39	-4 16.1	4.175	5.160	2.8	21.0	5 11	14 49.67	-16 26.7	1.226	2.233	2.5	19.2
5 21	14 47.62	-3 56.9	4.210	5.160	4.3	21.1	5 21	14 39.36	-16 19.7	1.251	2.237	7.9	19.5
5 31	14 43.35	-3 44.5	4.272	5.160	6.0	21.2	5 31	14 31.04	-16 17.1	1.299	2.240	12.7	19.8
6 10	14 39.88	-3 39.7	4.359	5.159	7.5	21.3	6 10	14 25.58	-16 22.8	1.368	2.243	16.9	20.0
125059	2001 <i>TB</i> ₂₃₃		5 6.5 198°62	2°1/ 3.3 18			315264	2007 <i>TQ</i> ₄₆		5 6.5 184°51	4°2/ 8.7 16		
4 1	15 9.84	-5 57.1	4.642	5.475	6.3	20.2	4 1	15 27.39	-27 1.7	1.856	2.655	15.5	21.7
4 11	15 6.34	-5 32.4	4.561	5.474	4.7	20.1	4 11	15 21.12	-27 37.0	1.770	2.656	12.4	21.5
4 21	15 2.08	-5 8.1	4.507	5.473	3.2	20.0	4 21	15 12.11	-27 58.9	1.706	2.656	8.9	21.3
5 1	14 57.32	-4 46.0	4.482	5.472	2.2	19.9	5 1	15 1.10	-28 4.8	1.667	2.655	5.5	21.1
5 11	14 52.41	-4 27.6	4.486	5.470	2.6	19.9	5 11	14 49.29	-27 54.7	1.656	2.654	4.3	21.0
5 21	14 47.65	-4 14.3	4.519	5.469	4.0	20.0	5 21	14 37.95	-27 31.3	1.672	2.652	6.9	21.1
5 31	14 43.37	-4 7.1	4.580	5.468	5.6	20.1	5 31	14 28.31	-27 0.0	1.714	2.649	10.6	21.4
6 10	14 39.83	-4 6.7	4.666	5.466	7.1	20.3	6 10	14 21.21	-26 27.3	1.779	2.646	14.0	21.6
420831	2013 <i>JB</i> ₈		5 6.5 331°06	3°2/ 5.3 17			277750	2006 <i>DW</i> ₁₁₆		5 6.5 261°57	2°7/ 5.1 17		
4 1	15 19.41	-10 8.3	1.144	2.019	18.3	20.2	4 1	15 22.90	-8 58.9	1.909	2.749	13.6	20.2
4 11	15 16.10	-10 7.9	1.067	2.003	14.0	19.8	4 11	15 17.33	-9 0.5	1.826	2.744	10.3	20.0
4 21	15 9.46	-10 6.2	1.008	1.988	9.1	19.5	4 21	15 9.52	-9 2.1	1.767	2.739	6.6	19.7
5 1	15 0.26	-10 7.1	0.971	1.974	4.2	19.2	5 1	15 0.12	-9 6.1	1.734	2.734	3.2	19.5
5 11	14 49.91	-10 14.9	0.957	1.961	4.8	19.2	5 11	14 50.11	-9 15.1	1.728	2.728	3.7	19.5
5 21	14 40.02	-10 33.3	0.966	1.949	10.1	19.4	5 21	14 40.50	-9 31.1	1.750	2.723	7.4	19.7
5 31	14 32.17	-11 5.1	0.996	1.938	15.5	19.7	5 31	14 32.27	-9 55.6	1.798	2.717	11.1	19.9
6 10	14 27.45	-11 51.3	1.043	1.928	20.2	19.9	6 10	14 26.13	-10 29.6	1.869	2.712	14.5	20.1
334764	2003 <i>SA</i> ₅₉		5 6.5 208°65	1°5/ 7.8 18			460320	2014 <i>QE</i> ₄₁₃		5 6.5 178°94	3°2/ 4.5 16		
4 1	15 19.59	-23 51.9	2.519	3.324	11.7	21.3	4 1	15 22.43	-11 14.8	1.644	2.492	15.0	22.1
4 11	15 14.44	-23 30.9	2.423	3.318	9.1	21.1	4 11	15 17.19	-10 30.2	1.571	2.493	11.3	21.9
4 21	15 7.49	-22 58.6	2.351	3.311	6.1	20.9	4 21	15 9.49	-9 40.6	1.520	2.494	7.2	21.6
5 1	14 59.34	-22 15.8	2.306	3.304	2.9	20.7	5 1	15 0.12	-8 50.5	1.495	2.495	3.6	21.4
5 11	14 50.75	-21 25.1	2.290	3.296	1.9	20.6	5 11	14 50.18	-8 5.5	1.496	2.495	4.5	21.5
5 21	14 42.50	-20 30.2	2.303	3.287	4.9	20.8	5 21	14 40.83	-7 30.9	1.524	2.494	8.5	21.7
5 31	14 35.36	-19 35.6	2.345	3.278	8.2	21.0	5 31	14 33.10	-7 10.7	1.576	2.493	12.5	21.9
6 10	14 29.88	-18 46.0	2.411	3.269	11.1	21.2	6 10	14 27.71	-7 6.7	1.650	2.492	16.1	22.1
82096	2001 <i>FW</i> ₆		5 6.5 310°56	1°5/ 5.8 17			18901	2000 <i>MR</i> ₅		5 6.5 190°14	1°9/ 8.5 18		
4 1	15 19.16	-15 24.1	1.133	2.004	18.7	19.6	4 1	15 17.62	-27 1.9	2.645	3.441	11.5	17.7
4 11	15 16.04	-15 6.5	1.052	1.986	14.4	19.3	4 11	15 12.83	-26 19.8	2.553	3.440	9.0	17.5
4 21	15 9.50	-14 38.2	0.989	1.969	9.1	19.0	4 21	15 6.41	-25 23.9	2.484	3.439	6.1	17.3
5 1	15 0.30	-14 2.4	0.948	1.952	3.4	18.6	5 1	14 58.94	-24 15.6	2.443	3.438	3.2	17.1
5 11	14 49.87	-13 24.7	0.930	1.936	3.6	18.5	5 11	14 51.15	-22 58.2	2.431	3.436	2.1	17.1
5 21	14 39.91	-12 52.0	0.934	1.921	9.7	18.8	5 21	14 43.78	-21 36.0	2.449	3.434	4.6	17.2
5 31	14 32.03	-12 31.3	0.960	1.906	15.5	19.1	5 31	14 37.48	-20 14.6	2.496	3.432	7.7	17.4
6 10	14 27.37	-12 27.4	1.003	1.892	20.5	19.3	6 10	14 32.76	-18 59.0	2.568	3.429	10.4	17.6
300172	2006 <i>VS</i> ₁₆₈		5 6.5 274°06	3°1/ 4.4 16			497404	2005 <i>WF</i> ₁₄		5 6.5 194°55	2°2/ 8.3 17		
4 1	15 20.07	-7 22.6	2.251	3.090	11.8	21.0	4 1	15 20.16	-26 32.3	2.050	2.858	14.0	21.9
4 11	15 14.93	-7 11.2	2.159	3.075	9.0	20.8	4 11	15 15.22	-25 56.4	1.962	2.856	11.0	21.7
4 21	15 7.90	-7 0.1	2.090	3.060	6.0	20.6	4 21	15 8.14	-25 4.0	1.896	2.854	7.5	21.5
5 1	14 59.52	-6 52.2	2.048	3.045	3.4	20.4	5 1	14 59.61	-23 56.2	1.856	2.852	3.8	21.3
5 11	14 50.58	-6 50.4	2.035	3.030	4.0	20.4	5 11	14 50.62	-22 36.8	1.844	2.850	2.5	21.2
5 21	14 41.92	-6 56.8	2.050	3.015	7.1	20.6	5 21	14 42.14	-21 11.7	1.861	2.847	5.7	21.4
5 31	14 34.34	-7 13.3	2.091	2.999	10.3	20.7	5 31	14 35.07	-19 47.8	1.905	2.843	9.5	21.6
6 10	14 28.49	-7 40.5	2.155	2.984	13.3	20.9	6 10	14 30.05	-18 31.6	1.973	2.840	12.8	21.8
214121	2004 <i>XA</i> ₂₈		5 6.5 90°91	0°3/ 6.3 18			420276	2011 <i>LY</i> ₁₉		5 6.5 273°22	0°8/ 7.7 18		
4 1	15 24.79	-17 9.6	1.513	2.355	16.4	21.2	4 1	15 10.48	-22 26.3	4.434	5.238	7.1	21.6
4 11	15 19.00	-16 57.1	1.456	2.375	12.4	21.0	4 11	15 6.94	-22 12.0	4.338	5.234	5.4	21.4
4 21	15 10.56	-16 35.5	1.420	2.394	7.7	20.8	4 21	15 2.52	-21 52.0	4.268	5.230	3.6	21.3
5 1	15 0.44	-16 7.0	1.410	2.413	2.7	20.5	5 1	14 57.52	-21 27.2	4.227	5.225	1.6	21.1
5 11	14 49.91	-15 35.8	1.425	2.432	2.4	20.6	5 11	14 52.33	-20 59.0	4.215	5.221	1.1	21.1
5 21	14 40.23	-15 6.6	1.468	2.451	7.2	20.9	5 21	14 47.31	-20 29.0	4.233	5.217	2.9	21.2
5 31	14 32.48	-14 44.3	1.535	2.469	11.6	21.2	5 31	14 42.83	-19 59.1	4.279	5.212	4.8	21.4
6 10	14 27.30	-14 32.4	1.623	2.487	15.2	21.5	6 10	14 39.18	-19 31.3	4.352	5.208	6.6	21.5
271873	2004 <i>TU</i> ₃₃₆		5 6.5 194°63	5°7/ 10.0 17			179409	2001 <i>YB</i> ₁₅₅		5 6.5 139°68	0°4/ 6.8 18		
4 1	15 25.												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
175643	2007 <i>VF</i> ₁₆₅		5 6.5 175°36	0°3/ 6.3 16			236149	2005 <i>UD</i> ₁₇₁		5 6.5 55°93	1°0/ 7.1 18		
4 1	15 22.92	-18 1.0	2.003	2.830	13.5	22.1	4 1	15 21.23	-21 39.1	1.212	2.065	19.0	20.6
4 11	15 17.22	-17 32.8	1.922	2.833	10.3	21.9	4 11	15 17.06	-21 13.6	1.152	2.075	14.5	20.3
4 21	15 9.37	-16 55.2	1.864	2.835	6.5	21.7	4 21	15 9.75	-20 30.7	1.111	2.085	9.4	20.0
5 1	15 0.07	-16 10.6	1.833	2.837	2.3	21.4	5 1	15 0.31	-19 32.9	1.093	2.096	3.7	19.8
5 11	14 50.28	-15 22.6	1.831	2.838	2.1	21.4	5 11	14 50.26	-18 26.5	1.099	2.106	2.5	19.7
5 21	14 41.00	-14 36.0	1.857	2.838	6.3	21.7	5 21	14 41.14	-17 19.7	1.129	2.117	8.0	20.1
5 31	14 33.13	-13 55.6	1.910	2.837	10.1	21.9	5 31	14 34.23	-16 21.0	1.181	2.129	13.1	20.4
6 10	14 27.32	-13 25.1	1.986	2.836	13.4	22.1	6 10	14 30.30	-15 37.0	1.254	2.140	17.4	20.7
147208	2002 <i>WE</i>		5 6.5 75°23	0°4/ 6.2 18			342336	2008 <i>TJ</i> ₁₁₉		5 6.5 187°29	0°0/ 6.3 17		
4 1	15 21.39	-20 2.2	1.643	2.479	15.6	19.3	4 1	15 19.57	-18 38.3	2.123	2.951	12.8	21.7
4 11	15 16.13	-18 59.3	1.590	2.506	11.7	19.1	4 11	15 14.66	-18 15.7	2.040	2.951	9.7	21.5
4 21	15 8.60	-17 43.6	1.560	2.533	7.3	18.9	4 21	15 7.77	-17 44.2	1.980	2.951	6.2	21.3
5 1	14 59.72	-16 19.5	1.556	2.560	2.5	18.7	5 1	14 59.55	-17 5.6	1.947	2.950	2.2	21.1
5 11	14 50.65	-14 53.9	1.580	2.586	2.3	18.7	5 11	14 50.86	-16 23.4	1.942	2.949	1.8	21.0
5 21	14 42.43	-13 34.0	1.631	2.612	6.8	19.1	5 21	14 42.60	-15 41.5	1.965	2.947	5.8	21.3
5 31	14 35.96	-12 26.1	1.707	2.638	10.8	19.3	5 31	14 35.60	-15 4.4	2.014	2.946	9.4	21.5
6 10	14 31.75	-11 34.3	1.806	2.664	14.2	19.6	6 10	14 30.46	-14 35.7	2.087	2.944	12.6	21.7
299326	2005 <i>QV</i> ₁₅₃		5 6.5 167°30	0°6/ 6.9 18			169033	2001 <i>FA</i> ₁₄		5 6.5 72°40	0°4/ 6.8 18		
4 1	15 19.63	-18 47.4	2.531	3.350	11.3	20.6	4 1	15 24.43	-18 49.5	1.451	2.293	17.0	19.6
4 11	15 14.41	-18 54.0	2.446	3.352	8.6	20.5	4 11	15 18.85	-18 44.2	1.398	2.315	12.9	19.4
4 21	15 7.47	-18 54.3	2.386	3.353	5.5	20.3	4 21	15 10.56	-18 28.2	1.365	2.337	8.1	19.2
5 1	14 59.38	-18 49.0	2.353	3.355	2.2	20.0	5 1	15 0.54	-18 3.1	1.357	2.360	3.0	18.9
5 11	14 50.86	-18 39.7	2.349	3.356	1.5	20.0	5 11	14 50.13	-17 33.0	1.375	2.382	2.2	18.9
5 21	14 42.68	-18 28.5	2.374	3.357	4.9	20.2	5 21	14 40.62	-17 2.7	1.418	2.404	7.1	19.3
5 31	14 35.55	-18 18.2	2.426	3.358	8.0	20.4	5 31	14 33.11	-16 37.6	1.487	2.426	11.5	19.6
6 10	14 30.03	-18 11.6	2.503	3.358	10.8	20.6	6 10	14 28.25	-16 21.8	1.576	2.448	15.2	19.9
132443	2002 <i>GQ</i> ₁₇₇		5 6.5 143°85	3°1/ 3.8 17			436692	2011 <i>SY</i> ₁₉₉		5 6.5 295°10	0°6/ 6.9 17		
4 1	15 18.35	-11 7.0	2.126	2.968	12.3	20.6	4 1	15 18.49	-19 19.9	2.059	2.889	13.1	21.2
4 11	15 13.54	-9 59.2	2.056	2.976	9.2	20.4	4 11	15 14.02	-19 14.7	1.969	2.881	10.0	21.0
4 21	15 6.92	-8 46.7	2.010	2.983	5.9	20.3	4 21	15 7.48	-19 0.8	1.902	2.872	6.4	20.8
5 1	14 59.16	-7 34.3	1.992	2.990	3.3	20.1	5 1	14 59.48	-18 39.3	1.861	2.863	2.5	20.5
5 11	14 51.07	-6 27.4	2.002	2.996	4.2	20.2	5 11	14 50.90	-18 12.7	1.847	2.855	1.8	20.4
5 21	14 43.47	-5 30.8	2.040	3.002	7.3	20.4	5 21	14 42.67	-17 44.5	1.862	2.847	5.8	20.7
5 31	14 37.09	-4 48.4	2.104	3.007	10.5	20.6	5 31	14 35.68	-17 18.7	1.902	2.838	9.6	20.9
6 10	14 32.46	-4 21.9	2.190	3.012	13.3	20.8	6 10	14 30.61	-16 59.2	1.965	2.830	12.9	21.1
501129	2013 <i>TL</i> ₃₂		5 6.5 201°14	0°2/ 6.7 17			277449	2005 <i>UM</i> ₄₉₂		5 6.5 256°38	4°0/ 8.8 17		
4 1	15 20.72	-19 5.3	2.202	3.026	12.6	22.5	4 1	15 23.13	-26 54.8	1.848	2.656	15.3	21.0
4 11	15 15.48	-18 45.7	2.114	3.022	9.6	22.3	4 11	15 18.02	-27 23.3	1.756	2.646	12.2	20.8
4 21	15 8.26	-18 17.0	2.049	3.018	6.1	22.0	4 21	15 10.27	-27 38.2	1.684	2.636	8.8	20.5
5 1	14 59.68	-17 41.0	2.011	3.014	2.3	21.8	5 1	15 0.56	-27 37.5	1.637	2.626	5.3	20.3
5 11	14 50.61	-17 0.6	2.001	3.008	1.8	21.7	5 11	14 50.00	-27 21.6	1.617	2.616	4.1	20.2
5 21	14 41.93	-16 19.6	2.020	3.003	5.7	22.0	5 21	14 39.80	-26 53.2	1.624	2.606	6.8	20.3
5 31	14 34.48	-15 42.5	2.067	2.997	9.3	22.2	5 31	14 31.15	-26 17.7	1.656	2.595	10.5	20.5
6 10	14 28.88	-15 13.0	2.136	2.990	12.5	22.4	6 10	14 24.91	-25 41.6	1.710	2.585	14.1	20.7
265000	2003 <i>EK</i> ₃₃		5 6.5 95°53	5°6/ 2.3 18			29728	1999 <i>AM</i> ₃₄		5 6.5 119°55	3°7/ 8.7 18		
4 1	15 20.43	-4 37.9	1.840	2.688	13.7	21.0	4 1	15 23.74	-26 36.7	1.493	2.315	17.6	18.4
4 11	15 15.15	-3 19.9	1.792	2.710	10.5	20.8	4 11	15 18.74	-26 44.6	1.420	2.320	13.9	18.2
4 21	15 7.92	-2 3.6	1.767	2.731	7.4	20.7	4 21	15 10.76	-26 34.6	1.367	2.326	9.7	17.9
5 1	14 59.51	-0 55.4	1.769	2.753	5.6	20.6	5 1	15 0.71	-26 5.8	1.337	2.331	5.5	17.7
5 11	14 50.87	-0 1.3	1.797	2.773	6.7	20.7	5 11	14 49.94	-25 20.4	1.333	2.336	3.9	17.6
5 21	14 42.92	+ 0 34.8	1.853	2.794	9.4	20.9	5 21	14 39.90	-24 24.3	1.354	2.340	7.3	17.8
5 31	14 36.42	+ 0 51.0	1.932	2.814	12.3	21.1	5 31	14 31.86	-23 25.2	1.400	2.345	11.6	18.1
6 10	14 31.90	+ 0 47.9	2.031	2.833	14.9	21.3	6 10	14 26.62	-22 31.2	1.467	2.349	15.5	18.3
372454	2009 <i>SP</i> ₁₂₇		5 6.5 162°80	2°0/ 7.9 17			505939	2015 <i>FC</i> ₆₁		5 6.5 256°05	5°4/ 10.5 18		
4 1	15 21.85	-23 36.0	2.030	2.844	13.8	22.0	4 1	15 21.27	-32 48.2	1.927	2.712	15.5	21.3
4 11	15 16.52	-23 32.9	1.948	2.848	10.8	21.8	4 11	15 16.56	-32 58.2	1.833	2.703	12.8	21.1
4 21	15 8.99	-23 17.7	1.889	2.851	7.2	21.6	4 21	15 9.29	-32 49.1	1.759	2.694	9.7	20.9
5 1	14 59.97	-22 50.8	1.856	2.854	3.5	21.4	5 1	15 0.18	-32 18.7	1.709	2.685	6.8	20.7
5 11	14 50.44	-22 14.5	1.851	2.857	2.4	21.3	5 11	14 50.34	-31 27.9	1.686	2.676	5.4	20.6
5 21	14 41.40	-21 32.7	1.874	2.859	5.8	21.5	5 21	14 40.96	-30 20.7	1.688	2.666	7.1	20.7
5 31	14 33.78	-20 50.6	1.923	2.861	9.4	21.7	5 31	14 33.16	-29 4.2	1.717	2.656	10.2	20.9
6 10	14 28.24	-20 13.1	1.996	2.862	12.7	21.9	6 10	14 27.74	-27 46.6	1.769	2.647	13.5	21.0
292381	2006 <i>SM</i> ₂₆₁		5 6.5 2°51	1°7/ 7.4 17			453862	2011 <i>UP</i> ₈₆		5 6.5 105°73	1°0/ 5.9 18		
4 1	15 17.80	-21 21.5	1.226	2.084	18.5	20.1	4 1	15 25.62	-15 23.2	1.666	2.502	15.4	21.1
4 11	15 14.64	-21 22.6	1.158	2.083	14.3	19.8	4 11	15 19.43	-15 9.0	1.607	2.523	11.6	20.9
4 21	15 8.37	-21 8.6	1.108	2.082	9.4	19.5	4 21	15 10.80	-14 48.0	1.570	2.543	7.2	20.7
5 1	14 59.87	-20 40.3	1.081	2.083	4.1	19.2	5 1	15 0.63	-14 22.5	1.559	2.563	2.6	20.5
5 11	14 50.55	-20 1.7	1.076	2.084	2.7	19.1	5 11	14 50.07	-13 56.3	1.576	2.582	2.6	20.5
5 21	14 41.94	-19 19.0	1.096	2.086	7.9	19.5	5 21	14 40.31	-13 33.5	1.620	2.600	7.0	20.8
5 31	14 35.39	-18 39.7	1.138	2.090	13.0	19.7	5 31	14 32.31	-13 18.1	1.689	2.618	11.1	21.1
6 10	14 31.78	-18 10.2	1.199	2.094	17.4	20.0	6 10	14 26.71	-13 12.7	1.780	2.635	14.5	21.4
187973	2001 <i>QP</i> ₁₁₂		5 6.5 307°99	4°3/ 3.3 17			303269	2004 <i>RN</i> ₁₅₅		5 6.5 313°64			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
33634	Strickler		5 6.5	89°64	4.3/ 4.3	18	335789	2007 <i>GN</i> ₁₃		5 6.5	26°21	2.7/ 2.6	18
4 1	15 23.85	- 8 13.9	1.463	2.317	16.2	17.6	4 1	15 9.76	- 4 43.7	4.138	4.974	6.9	21.1
4 11	15 18.32	- 7 38.6	1.408	2.333	12.3	17.4	4 11	15 6.43	- 4 3.7	4.063	4.976	5.3	21.0
4 21	15 10.21	- 7 2.4	1.375	2.348	8.0	17.2	4 21	15 2.24	- 3 24.5	4.014	4.978	3.7	20.9
5 1	15 0.43	- 6 30.5	1.366	2.363	4.6	17.0	5 1	14 57.53	- 2 48.2	3.994	4.979	2.7	20.8
5 11	14 50.24	- 6 8.2	1.383	2.379	5.4	17.1	5 11	14 52.64	- 2 17.0	4.004	4.981	3.3	20.8
5 21	14 40.87	- 5 59.2	1.426	2.393	9.2	17.4	5 21	14 47.94	- 1 52.6	4.042	4.983	4.7	20.9
5 31	14 33.36	- 6 5.7	1.492	2.408	13.2	17.6	5 31	14 43.77	- 1 36.4	4.107	4.985	6.4	21.0
6 10	14 28.37	- 6 27.9	1.579	2.422	16.6	17.9	6 10	14 40.42	- 1 28.9	4.195	4.987	8.0	21.2
271882	2004 <i>US</i> ₉		5 6.5	242°50	1°1/ 5.5	18	382312	2013 <i>RX</i> ₃₂		5 6.5	263°27	1°9/ 7.6	18
4 1	15 19.24	-16 47.3	2.354	3.182	11.7	21.2	4 1	15 23.80	-22 4.2	1.900	2.719	14.5	21.4
4 11	15 14.33	-15 54.6	2.252	3.164	8.9	21.0	4 11	15 18.51	-22 15.9	1.794	2.697	11.4	21.1
4 21	15 7.56	-14 52.6	2.174	3.146	5.6	20.7	4 21	15 10.63	-22 17.2	1.711	2.675	7.6	20.8
5 1	14 59.50	-13 43.9	2.123	3.127	2.1	20.5	5 1	15 0.77	-22 7.3	1.652	2.651	3.6	20.6
5 11	14 50.93	-12 33.1	2.103	3.107	2.4	20.4	5 11	14 49.94	-21 47.4	1.622	2.628	2.5	20.4
5 21	14 42.64	-11 25.1	2.111	3.087	6.1	20.6	5 21	14 39.31	-21 20.6	1.618	2.603	6.5	20.6
5 31	14 35.43	-10 24.9	2.147	3.066	9.6	20.8	5 31	14 30.06	-20 51.6	1.641	2.578	10.8	20.8
6 10	14 29.90	- 9 36.4	2.207	3.044	12.7	21.0	6 10	14 23.09	-20 26.1	1.687	2.553	14.7	21.0
296212	2009 <i>CK</i> ₂₂		5 6.5	199°36	1°0/ 5.7	18	497184	2004 <i>TA</i> ₆₅		5 6.5	237°03	0°0/ 6.3	17
4 1	15 18.18	-15 31.2	2.270	3.104	11.9	21.6	4 1	15 19.69	-18 34.4	2.025	2.856	13.3	22.5
4 11	15 13.47	-15 3.8	2.187	3.102	9.0	21.4	4 11	15 14.94	-18 10.9	1.935	2.848	10.1	22.3
4 21	15 6.98	-14 30.1	2.127	3.101	5.6	21.1	4 21	15 8.08	-17 37.9	1.868	2.840	6.4	22.0
5 1	14 59.27	-13 52.5	2.095	3.099	2.1	20.9	5 1	14 59.75	-16 57.3	1.828	2.831	2.3	21.7
5 11	14 51.14	-13 14.3	2.091	3.096	2.2	20.9	5 11	14 50.84	-16 12.5	1.815	2.822	1.9	21.7
5 21	14 43.40	-12 39.2	2.116	3.094	5.8	21.1	5 21	14 42.32	-15 28.0	1.830	2.813	6.1	21.9
5 31	14 36.78	-12 10.9	2.167	3.092	9.2	21.3	5 31	14 35.09	-14 48.4	1.872	2.804	10.0	22.1
6 10	14 31.86	-11 51.9	2.241	3.089	12.2	21.5	6 10	14 29.82	-14 18.0	1.936	2.794	13.4	22.3
99421	2002 <i>AC</i> ₁₆₄		5 6.5	214°18	2°1/ 5.1	16	192404	1997 <i>EE</i> ₁₉		5 6.5	274°56	0°5/ 6.1	17
4 1	15 22.25	-13 53.8	1.783	2.624	14.3	20.6	4 1	15 18.82	-17 15.6	1.927	2.765	13.5	21.0
4 11	15 17.05	-13 10.2	1.698	2.618	10.9	20.3	4 11	15 14.43	-16 49.4	1.834	2.751	10.3	20.8
4 21	15 9.47	-12 18.8	1.636	2.610	6.8	20.1	4 21	15 7.85	-16 14.0	1.763	2.736	6.5	20.5
5 1	15 0.23	-11 23.4	1.600	2.603	2.9	19.8	5 1	14 59.69	-15 31.7	1.718	2.722	2.3	20.2
5 11	14 50.36	-10 29.2	1.592	2.594	3.5	19.8	5 11	14 50.88	-14 46.3	1.700	2.707	2.2	20.2
5 21	14 40.95	- 9 41.7	1.611	2.585	7.7	20.0	5 21	14 42.42	-14 2.5	1.710	2.692	6.6	20.4
5 31	14 33.02	- 9 5.9	1.655	2.576	11.8	20.3	5 31	14 35.25	-13 25.1	1.746	2.677	10.6	20.6
6 10	14 27.31	- 8 45.0	1.721	2.565	15.4	20.5	6 10	14 30.10	-12 58.3	1.803	2.662	14.2	20.8
248065	2004 <i>OZ</i>		5 6.5	228°10	5°9/ 1.1	18	128532	2004 <i>PG</i> ₅₆		5 6.5	227°26	5°3/ 10.5	18
4 1	15 19.55	+ 0 4.2	2.462	3.295	11.1	21.6	4 1	15 23.40	-33 22.5	2.286	3.053	13.9	21.5
4 11	15 14.37	+ 1 9.3	2.376	3.281	8.9	21.5	4 11	15 17.88	-33 43.0	2.185	3.043	11.5	21.3
4 21	15 7.50	+ 2 11.8	2.316	3.266	6.8	21.3	4 21	15 10.03	-33 47.3	2.106	3.032	8.9	21.1
5 1	14 59.47	+ 3 6.4	2.282	3.250	5.9	21.2	5 1	15 0.49	-33 33.2	2.051	3.020	6.4	20.9
5 11	14 50.98	+ 3 48.3	2.277	3.234	6.8	21.2	5 11	14 50.24	-33 0.7	2.024	3.008	5.3	20.9
5 21	14 42.79	+ 4 14.2	2.298	3.217	9.0	21.3	5 21	14 40.34	-32 12.4	2.024	2.995	6.6	20.9
5 31	14 35.59	+ 4 22.3	2.345	3.199	11.5	21.5	5 31	14 31.80	-31 13.7	2.051	2.982	9.3	21.1
6 10	14 29.94	+ 4 12.6	2.413	3.180	13.8	21.6	6 10	14 25.38	-30 11.2	2.102	2.968	12.2	21.2
334737	2003 <i>OK</i> ₂₀		5 6.5	265°55	5°0/ 10.3	18	348853	2006 <i>SP</i> ₈₈		5 6.5	29°22	2°5/ 4.5	17
4 1	15 22.13	-32 53.4	2.250	3.022	14.0	21.3	4 1	15 15.95	-12 38.7	1.979	2.828	12.8	20.9
4 11	15 17.02	-33 1.8	2.135	2.998	11.6	21.0	4 11	15 11.96	-11 45.1	1.908	2.832	9.6	20.7
4 21	15 9.55	-32 53.3	2.042	2.973	8.8	20.8	4 21	15 6.09	-10 45.9	1.861	2.836	6.0	20.5
5 1	15 0.31	-32 25.6	1.974	2.947	6.2	20.6	5 1	14 58.99	- 9 45.3	1.839	2.840	2.9	20.3
5 11	14 50.26	-31 38.9	1.933	2.921	5.0	20.5	5 11	14 51.51	- 8 48.6	1.846	2.845	3.7	20.3
5 21	14 40.45	-30 36.2	1.919	2.894	6.6	20.5	5 21	14 44.50	- 8 0.4	1.879	2.850	7.1	20.6
5 31	14 31.96	-29 23.2	1.932	2.867	9.6	20.6	5 31	14 38.75	- 7 24.8	1.937	2.855	10.5	20.8
6 10	14 25.57	-28 7.4	1.970	2.839	12.7	20.8	6 10	14 34.79	- 7 3.9	2.018	2.860	13.6	21.0
419542	2010 <i>NX</i> ₂₁		5 6.5	271°94	3°3/ 8.2	17	323731	2005 <i>LT</i> ₁₆		5 6.5	274°14	0°8/ 6.0	17
4 1	15 23.23	-24 37.7	1.604	2.428	16.5	21.7	4 1	15 20.73	-16 45.1	1.706	2.548	14.8	21.5
4 11	15 18.48	-24 59.4	1.510	2.413	13.1	21.5	4 11	15 16.25	-16 19.7	1.608	2.528	11.4	21.2
4 21	15 10.78	-25 7.5	1.437	2.398	9.1	21.2	4 21	15 9.20	-15 44.4	1.533	2.507	7.2	21.0
5 1	15 0.83	-25 0.2	1.387	2.383	5.0	20.9	5 1	15 0.24	-15 1.4	1.482	2.486	2.6	20.6
5 11	14 49.83	-24 38.3	1.364	2.367	3.6	20.8	5 11	14 50.41	-14 14.9	1.458	2.465	2.6	20.6
5 21	14 39.18	-24 5.3	1.366	2.352	7.3	21.0	5 21	14 40.89	-13 30.3	1.461	2.443	7.4	20.8
5 31	14 30.24	-23 27.4	1.392	2.336	11.8	21.2	5 31	14 32.82	-12 53.3	1.489	2.421	12.0	21.0
6 10	14 23.99	-22 51.7	1.440	2.320	15.9	21.4	6 10	14 27.08	-12 28.5	1.537	2.399	16.1	21.2
381384	2008 <i>FH</i> ₁₃₅		5 6.5	355°21	0°4/ 6.9	18	155772	2000 <i>SM</i> ₂₄₀		5 6.5	286°42	19°6/ 12.0	18
4 1	15 12.06	-18 58.8	4.099	4.913	7.4	21.3	4 1	15 32.79	-46 51.0	1.128	1.879	26.2	19.7
4 11	15 8.21	-18 56.9	4.009	4.913	5.6	21.1	4 11	15 29.39	-49 43.2	1.051	1.864	24.1	19.5
4 21	15 3.39	-18 50.7	3.945	4.912	3.6	21.0	4 21	15 20.05	-52 11.6	0.988	1.850	22.1	19.3
5 1	14 57.94	-18 41.0	3.910	4.912	1.4	20.8	5 1	15 4.97	-53 58.7	0.941	1.835	20.4	19.1
5 11	14 52.27	-18 29.1	3.904	4.911	1.0	20.8	5 11	14 46.19	-54 48.7	0.911	1.820	19.6	19.0
5 21	14 46.78	-18 16.4	3.928	4.911	3.2	20.9	5 21	14 27.29	-54 35.1	0.897	1.806	20.2	19.0
5 31	14 41.87	-18 4.4	3.981	4.911	5.2	21.1	5 31	14 12.23	-53 25.4	0.899	1.791	21.9	19.0
6 10	14 37.85	-17 55.0	4.059	4.911	7.1	21.2	6 10	14 3.54	-51 38.5	0.916	1.777	24.3	19.1
84054	2002 <i>PE</i> ₈₄		5 6.5	244°61	1°2/ 5.8	18	331598	2001 <i>VR</i> ₂₀		5 6.5	191°19	0°1/ 6.7	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
312062	2007 <i>SU</i> ₂₁		5 6.5 168°25	1°1/ 5.8 16			508120	2015 <i>DA</i> ₂₂₉		5 6.6 299°13	0°4/ 6.7 17		
4 1	15 23.72	-15 21.8	1.836	2.671	14.3	22.0	4 1	15 23.01	-16 46.8	1.787	2.622	14.6	20.6
4 11	15 18.03	-14 58.1	1.759	2.675	10.8	21.7	4 11	15 17.80	-17 8.6	1.700	2.615	11.2	20.3
4 21	15 10.02	-14 27.1	1.706	2.679	6.8	21.5	4 21	15 10.10	-17 24.8	1.637	2.608	7.1	20.1
5 1	15 0.45	-13 51.5	1.678	2.682	2.5	21.2	5 1	15 0.58	-17 35.7	1.598	2.601	2.7	19.8
5 11	14 50.35	-13 15.2	1.679	2.684	2.6	21.3	5 11	14 50.29	-17 42.7	1.587	2.595	2.0	19.7
5 21	14 40.80	-12 42.5	1.707	2.686	6.9	21.5	5 21	14 40.38	-17 47.9	1.604	2.588	6.6	20.0
5 31	14 32.77	-12 17.8	1.761	2.687	10.9	21.8	5 31	14 31.95	-17 54.4	1.645	2.582	10.8	20.2
6 10	14 26.94	-12 4.0	1.838	2.688	14.4	22.0	6 10	14 25.81	-18 5.5	1.710	2.576	14.5	20.4
411746	2012 <i>BM</i> ₉₄		5 6.5 107°62	1°2/ 5.8 16			499914	2011 <i>GC</i> ₇₅		5 6.6 29°49	5°0/ 3.0 17		
4 1	15 23.05	-15 46.4	1.652	2.493	15.3	22.1	4 1	15 16.99	- 7 40.7	1.579	2.441	14.8	20.8
4 11	15 17.60	-15 17.1	1.589	2.508	11.5	21.9	4 11	15 13.13	- 6 30.4	1.518	2.447	11.2	20.5
4 21	15 9.74	-14 39.7	1.548	2.522	7.2	21.7	4 21	15 7.00	- 5 18.1	1.480	2.453	7.6	20.3
5 1	15 0.32	-13 57.5	1.533	2.536	2.6	21.4	5 1	14 59.39	- 4 10.4	1.466	2.459	5.1	20.2
5 11	14 50.49	-13 15.1	1.545	2.550	2.8	21.5	5 11	14 51.34	- 3 14.2	1.477	2.465	6.3	20.3
5 21	14 41.37	-12 37.5	1.584	2.564	7.2	21.8	5 21	14 43.90	- 2 35.1	1.514	2.472	9.6	20.5
5 31	14 33.96	-12 9.3	1.648	2.577	11.3	22.0	5 31	14 38.00	- 2 16.1	1.574	2.480	13.2	20.7
6 10	14 28.88	-11 53.4	1.733	2.589	14.8	22.3	6 10	14 34.25	- 2 17.6	1.653	2.488	16.4	21.0
346182	2007 <i>WF</i> ₄₀		5 6.5 194°15	1°8/ 4.8 18			507057	2008 <i>VN</i> ₄₃		5 6.6 222°15	3°0/ 9.0 17		
4 1	15 17.47	-12 33.3	2.752	3.583	10.1	21.7	4 1	15 21.01	-27 52.4	2.441	3.232	12.5	22.4
4 11	15 12.63	-11 50.8	2.666	3.581	7.6	21.5	4 11	15 15.77	-27 48.2	2.341	3.222	10.0	22.2
4 21	15 6.33	-11 4.2	2.606	3.578	4.8	21.4	4 21	15 8.55	-27 30.6	2.263	3.212	7.1	22.0
5 1	14 59.06	-10 16.1	2.574	3.574	2.2	21.2	5 1	14 59.97	-26 59.4	2.212	3.201	4.2	21.8
5 11	14 51.46	- 9 29.9	2.571	3.570	2.8	21.2	5 11	14 50.83	-26 16.0	2.190	3.190	3.1	21.7
5 21	14 44.18	- 8 49.1	2.597	3.566	5.5	21.4	5 21	14 42.03	-25 23.8	2.196	3.178	5.3	21.9
5 31	14 37.81	- 8 16.4	2.651	3.561	8.4	21.6	5 31	14 34.40	-24 27.7	2.230	3.166	8.4	22.0
6 10	14 32.83	- 7 54.0	2.730	3.555	10.9	21.7	6 10	14 28.58	-23 33.1	2.288	3.153	11.4	22.2
69224	4388 <i>T</i> ₋₃		5 6.5 254°00	3°3/ 4.0 18			9008	Bohsternberk		5 6.6 157°82	4°2/ 4.2 18		
4 1	15 18.88	- 9 27.8	2.048	2.892	12.6	19.9	4 1	15 24.37	- 8 42.5	1.531	2.381	15.8	17.6
4 11	15 14.26	- 8 43.5	1.959	2.879	9.6	19.7	4 11	15 18.83	- 7 59.7	1.464	2.386	12.0	17.3
4 21	15 7.63	- 7 55.9	1.894	2.866	6.3	19.5	4 21	15 10.67	- 7 14.6	1.418	2.391	7.9	17.1
5 1	14 59.60	- 7 9.0	1.856	2.853	3.6	19.3	5 1	15 0.74	- 6 32.4	1.398	2.395	4.5	16.9
5 11	14 51.01	- 6 27.4	1.845	2.839	4.4	19.3	5 11	14 50.25	- 5 58.8	1.404	2.399	5.5	17.0
5 21	14 42.76	- 5 55.6	1.861	2.825	7.7	19.5	5 21	14 40.43	- 5 38.7	1.436	2.402	9.3	17.2
5 31	14 35.70	- 5 36.8	1.903	2.811	11.2	19.6	5 31	14 32.37	- 5 34.9	1.491	2.404	13.4	17.4
6 10	14 30.49	- 5 32.8	1.967	2.797	14.3	19.8	6 10	14 26.81	- 5 48.3	1.567	2.406	16.9	17.7
149973	2005 <i>TV</i> ₁₈₃		5 6.5 140°54	5°0/ 2.8 17			211634	2003 <i>UX</i> ₁₄₃		5 6.6 224°35	1°6/ 7.5 17		
4 1	15 19.53	- 5 49.0	1.885	2.733	13.4	20.4	4 1	15 24.59	-21 27.8	1.905	2.724	14.4	21.3
4 11	15 14.67	- 4 42.6	1.819	2.739	10.2	20.2	4 11	15 18.95	-21 34.7	1.811	2.715	11.2	21.1
4 21	15 7.80	- 3 35.8	1.778	2.745	7.1	20.1	4 21	15 10.81	-21 31.2	1.740	2.705	7.4	20.8
5 1	14 59.63	- 2 34.6	1.762	2.751	5.1	20.0	5 1	15 0.85	-21 17.2	1.694	2.694	3.3	20.5
5 11	14 51.07	- 1 44.7	1.774	2.756	6.1	20.0	5 11	14 50.10	-20 54.2	1.676	2.683	2.3	20.4
5 21	14 43.04	- 1 10.5	1.812	2.761	9.0	20.2	5 21	14 39.72	-20 25.8	1.686	2.671	6.3	20.7
5 31	14 36.38	- 0 54.4	1.874	2.765	12.2	20.4	5 31	14 30.80	-19 56.8	1.722	2.658	10.5	20.9
6 10	14 31.66	- 0 56.8	1.957	2.770	15.0	20.6	6 10	14 24.15	-19 32.2	1.781	2.645	14.1	21.1
173995	2001 <i>XV</i> ₂₀₄		5 6.5 213°97	4°0/ 3.2 17			284334	2006 <i>RV</i> ₁₇		5 6.6 256°79	2°3/ 8.1 18		
4 1	15 17.80	- 4 45.3	2.549	3.387	10.7	20.9	4 1	15 22.48	-24 54.3	1.885	2.699	14.8	20.5
4 11	15 12.98	- 4 8.1	2.468	3.382	8.2	20.7	4 11	15 17.52	-24 42.1	1.780	2.679	11.7	20.2
4 21	15 6.61	- 3 31.9	2.412	3.377	5.7	20.5	4 21	15 10.00	-24 14.7	1.697	2.658	8.0	19.9
5 1	14 59.19	- 3 0.3	2.383	3.371	4.0	20.4	5 1	15 0.58	-23 31.8	1.639	2.636	4.0	19.6
5 11	14 51.40	- 2 36.7	2.383	3.365	4.8	20.4	5 11	14 50.30	-22 35.8	1.608	2.613	2.7	19.5
5 21	14 43.93	- 2 23.7	2.411	3.359	7.1	20.6	5 21	14 40.32	-21 31.3	1.605	2.590	6.5	19.7
5 31	14 37.42	- 2 23.0	2.464	3.353	9.8	20.7	5 31	14 31.78	-20 25.4	1.628	2.567	10.7	19.9
6 10	14 32.37	- 2 35.1	2.541	3.346	12.2	20.9	6 10	14 25.54	-19 24.8	1.673	2.543	14.6	20.1
458984	2011 <i>WP</i> ₇₁		5 6.5 82°94	6°1/ 4.8 18			287517	2003 <i>BA</i> ₇₈		5 6.6 101°74	3°5/ 8.4 18		
4 1	15 31.51	- 0 35.1	1.451	2.290	17.1	20.8	4 1	15 26.75	-25 19.0	1.451	2.273	18.0	20.5
4 11	15 24.18	- 0 47.5	1.393	2.304	13.4	20.6	4 11	15 20.99	-25 36.5	1.387	2.288	14.1	20.3
4 21	15 13.98	- 1 9.8	1.356	2.318	9.4	20.4	4 21	15 12.19	-25 37.7	1.343	2.303	9.7	20.1
5 1	15 1.89	- 1 45.5	1.344	2.332	6.4	20.3	5 1	15 1.32	-25 21.3	1.323	2.318	5.3	19.9
5 11	14 49.29	- 2 36.6	1.359	2.345	6.9	20.3	5 11	14 49.82	-24 49.5	1.328	2.332	3.8	19.8
5 21	14 37.58	- 3 42.2	1.400	2.359	10.2	20.6	5 21	14 39.19	-24 7.4	1.360	2.345	7.4	20.1
5 31	14 27.95	- 5 0.5	1.466	2.372	14.0	20.8	5 31	14 30.69	-23 22.6	1.415	2.359	11.7	20.3
6 10	14 21.12	- 6 28.4	1.554	2.386	17.4	21.1	6 10	14 25.11	-22 42.2	1.493	2.372	15.5	20.6
410174	2007 <i>PN</i> ₄₇		5 6.5 164°16	1°6/ 7.6 16			433023	2012 <i>RJ</i> ₄₁		5 6.6 221°21	2°8/ 4.2 18		
4 1	15 24.66	-22 15.0	1.814	2.634	15.0	22.0	4 1	15 19.47	- 8 51.3	2.603	3.436	10.6	22.2
4 11	15 18.89	-22 10.5	1.735	2.639	11.6	21.8	4 11	15 14.28	- 8 17.9	2.511	3.425	8.0	22.0
4 21	15 10.66	-21 53.6	1.679	2.644	7.7	21.6	4 21	15 7.47	- 7 42.7	2.444	3.414	5.3	21.8
5 1	15 0.72	-21 24.9	1.648	2.648	3.4	21.3	5 1	14 59.55	- 7 8.6	2.405	3.402	3.0	21.7
5 11	14 50.19	-20 47.1	1.644	2.651	2.3	21.3	5 11	14 51.19	- 6 38.9	2.396	3.389	3.7	21.7
5 21	14 40.24	-20 4.7	1.668	2.653	6.3	21.5	5 21	14 43.11	- 6 16.6	2.415	3.376	6.4	21.8
5 31	14 31.92	-19 23.3	1.719	2.655	10.4	21.8	5 31	14 35.98	- 6 4.1	2.461	3.362	9.3	22.0
6 10	14 25.94	-18 48.2	1.792	2.657	14.0	22.0	6 10	14 30.34	- 6 2.8	2.531	3.348	11.9	22.2
351964	2006 <i>TG</i> ₁₂₉		5 6.5 180°05	5°1/ 11.5 17			211968	2005 <i>AZ</i> ₁₅		5 6.6 75°7			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
74586	1999 NG ₆₃		5 6.6 273°29	1.3°/ 5.8	18		299367	2005 UA ₄₁		5 6.6 286°23	0.4°/ 6.3	16	
4 1	15 21.54	-15 55.2	1.661	2.504	15.1	19.9	4 1	15 20.73	-19 2.7	1.329	2.182	17.6	21.3
4 11	15 17.00	-15 23.5	1.560	2.480	11.6	19.6	4 11	15 16.67	-18 22.3	1.255	2.180	13.4	21.1
4 21	15 9.79	-14 41.6	1.481	2.455	7.4	19.3	4 21	15 9.62	-17 26.8	1.201	2.177	8.5	20.8
5 1	15 0.55	-13 52.2	1.427	2.430	2.7	19.0	5 1	15 0.47	-16 19.6	1.171	2.175	3.1	20.4
5 11	14 50.34	-13 0.0	1.399	2.405	3.0	18.9	5 11	14 50.56	-15 7.2	1.165	2.172	2.7	20.4
5 21	14 40.39	-12 10.9	1.398	2.379	7.9	19.2	5 21	14 41.33	-13 57.8	1.185	2.170	8.3	20.7
5 31	14 31.92	-11 31.0	1.422	2.352	12.7	19.4	5 31	14 34.06	-12 59.5	1.227	2.168	13.3	21.0
6 10	14 25.84	-11 5.1	1.467	2.326	16.9	19.6	6 10	14 29.58	-12 18.0	1.290	2.166	17.7	21.3
232927	2005 AO ₃₆		5 6.6 2°13	9°8/13.9	18		32243	2000 OU ₄₀		5 6.6 205°98	0°8/ 5.8	18	
4 1	15 22.04	-42 29.3	1.797	2.538	18.1	19.7	4 1	15 16.98	-16 51.6	2.482	3.311	11.2	19.3
4 11	15 17.74	-43 19.4	1.716	2.537	15.8	19.6	4 11	15 12.49	-16 9.7	2.395	3.308	8.4	19.1
4 21	15 10.36	-43 45.1	1.652	2.537	13.4	19.4	4 21	15 6.37	-15 20.2	2.333	3.305	5.2	18.9
5 1	15 0.74	-43 40.9	1.609	2.537	11.2	19.2	5 1	14 59.17	-14 25.8	2.298	3.302	1.9	18.6
5 11	14 50.25	-43 5.4	1.589	2.538	9.9	19.2	5 11	14 51.61	-13 30.1	2.293	3.298	2.0	18.6
5 21	14 40.40	-42 1.3	1.593	2.539	10.3	19.2	5 21	14 44.39	-12 37.2	2.316	3.294	5.4	18.9
5 31	14 32.54	-40 36.1	1.620	2.540	12.0	19.3	5 31	14 38.19	-11 51.1	2.366	3.290	8.6	19.0
6 10	14 27.59	-39 0.3	1.668	2.542	14.4	19.5	6 10	14 33.54	-11 14.7	2.441	3.285	11.4	19.2
150549	2000 SQ ₁₈₁		5 6.6 320°05	4°0/ 4.3	17		32932	1995 SX ₁₅		5 6.6 309°03	1°5/ 5.5	17	
4 1	15 17.60	- 9 37.0	1.458	2.322	15.7	19.5	4 1	15 16.57	-15 2.6	1.878	2.725	13.5	19.0
4 11	15 14.10	- 8 59.0	1.375	2.305	12.0	19.2	4 11	15 12.90	-14 29.0	1.777	2.699	10.2	18.8
4 21	15 7.96	- 8 16.9	1.312	2.289	7.8	18.9	4 21	15 7.02	-13 47.1	1.698	2.673	6.5	18.5
5 1	14 59.87	- 7 36.0	1.274	2.273	4.4	18.7	5 1	14 59.52	-12 59.7	1.644	2.648	2.5	18.2
5 11	14 50.94	- 7 2.3	1.260	2.258	5.3	18.7	5 11	14 51.27	-12 11.3	1.618	2.622	2.9	18.1
5 21	14 42.41	- 6 41.2	1.270	2.243	9.5	18.9	5 21	14 43.27	-11 27.0	1.618	2.597	7.2	18.3
5 31	14 35.48	- 6 36.9	1.304	2.229	14.0	19.1	5 31	14 36.50	-10 51.7	1.643	2.573	11.3	18.5
6 10	14 31.00	- 6 50.9	1.356	2.215	17.9	19.3	6 10	14 31.71	-10 29.3	1.690	2.548	15.0	18.7
45413	2000 AY ₁₄₇		5 6.6 232°81	4°0/ 3.8	18		300227	2006 XA ₅₂		5 6.6 178°11	4°2/ 2.9	18	
4 1	15 20.74	- 8 51.1	1.844	2.691	13.7	19.2	4 1	15 19.17	- 1 30.4	2.884	3.712	9.8	20.9
4 11	15 15.86	- 7 58.3	1.761	2.681	10.4	18.9	4 11	15 13.81	- 1 5.2	2.808	3.713	7.6	20.7
4 21	15 8.75	- 7 1.9	1.700	2.671	6.9	18.7	4 21	15 7.06	- 0 43.5	2.758	3.714	5.5	20.6
5 1	15 0.08	- 6 6.9	1.665	2.661	4.2	18.5	5 1	14 59.40	- 0 28.0	2.736	3.715	4.3	20.5
5 11	14 50.81	- 5 18.9	1.658	2.650	5.1	18.5	5 11	14 51.45	- 0 21.5	2.742	3.715	4.9	20.6
5 21	14 41.94	- 4 42.9	1.677	2.639	8.6	18.7	5 21	14 43.82	- 0 25.6	2.777	3.715	6.8	20.7
5 31	14 34.44	- 4 22.6	1.721	2.627	12.3	18.9	5 31	14 37.07	- 0 41.1	2.839	3.714	9.0	20.8
6 10	14 29.00	- 4 19.5	1.786	2.615	15.6	19.1	6 10	14 31.65	- 1 7.8	2.925	3.713	11.1	21.0
478089	2011 UU ₄₁		5 6.6 179°92	1°6/ 7.9	16		143042	2002 VW ₁₂₇		5 6.6 133°93	3°4/ 4.1	18	
4 1	15 19.91	-22 34.9	2.651	3.458	11.2	22.0	4 1	15 20.39	- 5 53.3	2.415	3.249	11.3	19.8
4 11	15 14.68	-22 43.9	2.563	3.458	8.7	21.8	4 11	15 14.96	- 5 36.4	2.343	3.257	8.6	19.6
4 21	15 7.76	-22 44.5	2.499	3.459	5.8	21.6	4 21	15 7.87	- 5 20.8	2.297	3.263	5.7	19.4
5 1	14 59.67	-22 37.0	2.462	3.459	2.8	21.4	5 1	14 59.71	- 5 9.5	2.277	3.270	3.6	19.3
5 11	14 51.16	-22 22.7	2.454	3.459	1.9	21.4	5 11	14 51.22	- 5 5.1	2.287	3.276	4.2	19.4
5 21	14 42.96	-22 3.8	2.475	3.458	4.7	21.6	5 21	14 43.13	- 5 9.5	2.324	3.282	6.8	19.5
5 31	14 35.79	-21 43.4	2.524	3.458	7.7	21.8	5 31	14 36.13	- 5 24.0	2.388	3.288	9.6	19.7
6 10	14 30.19	-21 24.9	2.597	3.457	10.3	21.9	6 10	14 30.72	- 5 48.9	2.476	3.294	12.1	19.9
323408	2004 BX ₁₃₂		5 6.6 86°07	0°4/ 6.8	17		165238	2000 SS ₁₁₆		5 6.6 267°22	0°9/ 6.9	17	
4 1	15 22.28	-20 3.8	1.592	2.429	16.0	21.6	4 1	15 24.48	-18 38.5	1.562	2.399	16.2	19.9
4 11	15 17.17	-19 39.8	1.530	2.445	12.1	21.4	4 11	15 19.44	-18 52.8	1.469	2.384	12.6	19.7
4 21	15 9.56	-19 3.5	1.490	2.461	7.7	21.2	4 21	15 11.46	-18 58.4	1.398	2.369	8.2	19.4
5 1	15 0.33	-18 17.4	1.474	2.477	2.9	20.9	5 1	15 1.22	-18 55.4	1.351	2.353	3.3	19.0
5 11	14 50.68	-17 26.0	1.485	2.492	2.1	20.9	5 11	14 49.92	-18 45.4	1.330	2.337	2.3	18.9
5 21	14 41.79	-16 35.2	1.522	2.508	6.8	21.2	5 21	14 38.95	-18 31.7	1.335	2.321	7.4	19.2
5 31	14 34.68	-15 50.9	1.585	2.523	11.0	21.5	5 31	14 29.65	-18 19.3	1.365	2.305	12.3	19.4
6 10	14 29.98	-15 17.6	1.669	2.538	14.7	21.8	6 10	14 23.04	-18 13.1	1.416	2.288	16.6	19.6
202803	2008 RZ ₁₀₄		5 6.6 3°43	1°0/ 5.9	17		418280	2008 EX ₁₁₁		5 6.6 132°89	1°4/ 5.7	16	
4 1	15 18.86	-16 16.6	1.762	2.607	14.3	20.7	4 1	15 23.31	-14 16.9	1.897	2.733	13.8	22.1
4 11	15 14.52	-15 47.3	1.686	2.606	10.8	20.5	4 11	15 17.58	-13 54.2	1.829	2.745	10.4	21.9
4 21	15 7.92	-15 9.5	1.632	2.606	6.8	20.3	4 21	15 9.70	-13 25.7	1.783	2.756	6.5	21.7
5 1	14 59.77	-14 26.0	1.603	2.607	2.5	20.0	5 1	15 0.40	-12 54.1	1.764	2.767	2.5	21.4
5 11	14 51.10	-13 41.4	1.601	2.607	2.5	20.0	5 11	14 50.69	-12 23.2	1.773	2.778	2.7	21.5
5 21	14 42.93	-13 0.5	1.626	2.607	6.9	20.2	5 21	14 41.56	-11 56.9	1.810	2.788	6.7	21.7
5 31	14 36.22	-12 28.2	1.675	2.608	10.9	20.5	5 31	14 33.92	-11 38.8	1.873	2.797	10.5	22.0
6 10	14 31.64	-12 7.8	1.747	2.608	14.5	20.7	6 10	14 28.37	-11 31.3	1.959	2.806	13.7	22.2
8888	Tartaglia		5 6.6 41°58	8°9/30.7	18		347653	2001 TD ₁₂₇		5 6.6 188°58	0°7/ 6.0	17	
4 1	15 18.92	+ 4 4.4	1.661	2.509	14.9	17.1	4 1	15 18.88	-15 24.3	2.700	3.524	10.5	22.1
4 11	15 14.43	+ 5 15.1	1.609	2.516	12.1	17.0	4 11	15 13.79	-15 10.6	2.613	3.523	7.9	21.9
4 21	15 7.76	+ 6 16.0	1.578	2.523	9.9	16.8	4 21	15 7.15	-14 52.0	2.551	3.522	5.0	21.7
5 1	14 59.68	+ 6 59.6	1.572	2.530	8.9	16.8	5 1	14 59.47	-14 30.3	2.517	3.520	1.8	21.5
5 11	14 51.22	+ 7 20.2	1.590	2.538	10.0	16.9	5 11	14 51.41	-14 7.7	2.513	3.518	1.8	21.5
5 21	14 43.39	+ 7 15.3	1.631	2.546	12.2	17.0	5 21	14 43.66	-13 46.9	2.538	3.516	5.0	21.7
5 31	14 37.07	+ 6 45.4	1.694	2.554	14.9	17.2	5 31	14 36.87	-13 30.4	2.590	3.513	8.0	21.9
6 10	14 32.85	+ 5 53.3	1.776	2.562	17.3	17.4	6 10	14 31.53	-13 20.5	2.667	3.510	10.6	22.0
502065	2015 AO ₁₈₀		5 6.6 109°67	1°9/ 5.4	17		314979	2006 XU ₃₀		5 6.6 123°07	1°3/ 7.7	17	
4 1	15 21.08	-13 13.1	1.805	2.648									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
427933	2005 <i>VW</i> ₄₀		5 6.6 164°53	1°6/ 5.4	17		30577	2001 <i>OU</i> ₁₀₃		5 6.6 201°06	15°2/23.5	18	
4 1	15 20.32	-14 17.2	1.951	2.790	13.4	21.7	4 1	15 22.05	+ 5 19.0	1.099	1.965	19.5	18.4
4 11	15 15.37	-13 43.4	1.875	2.793	10.1	21.4	4 11	15 17.88	+ 9 13.0	1.053	1.963	16.8	18.2
4 21	15 8.35	-13 3.2	1.821	2.795	6.3	21.2	4 21	15 10.47	+12 58.7	1.030	1.961	15.3	18.1
5 1	14 59.94	-12 19.7	1.795	2.798	2.5	21.0	5 1	15 0.82	+16 14.0	1.029	1.958	15.8	18.1
5 11	14 51.06	-11 37.2	1.796	2.799	2.9	21.0	5 11	14 50.45	+18 40.9	1.050	1.954	18.1	18.2
5 21	14 42.67	-11 0.1	1.824	2.801	6.8	21.2	5 21	14 40.92	+20 11.2	1.090	1.950	21.1	18.4
5 31	14 35.63	-10 32.4	1.879	2.802	10.5	21.5	5 31	14 33.58	+20 45.3	1.146	1.945	24.1	18.6
6 10	14 30.56	-10 16.7	1.956	2.803	13.7	21.7	6 10	14 29.27	+20 30.9	1.213	1.940	26.7	18.8
510772	2013 <i>AL</i> ₄₂		5 6.6 320°66	3°7/ 9.5	18		474874	2005 <i>SG</i> ₁₄₇		5 6.6 289°50	1°9/ 4.9	17	
4 1	15 18.41	-29 6.1	2.273	3.068	13.2	20.8	4 1	15 16.47	-13 43.5	2.226	3.066	11.9	21.1
4 11	15 13.96	-29 13.6	2.184	3.065	10.6	20.6	4 11	15 12.43	-12 59.2	2.125	3.044	9.0	20.9
4 21	15 7.50	-29 7.0	2.116	3.062	7.7	20.4	4 21	15 6.54	-12 7.9	2.048	3.023	5.7	20.6
5 1	14 59.65	-28 45.7	2.074	3.058	4.9	20.2	5 1	14 59.34	-11 13.0	1.998	3.000	2.5	20.4
5 11	14 51.28	-28 11.1	2.059	3.055	3.7	20.1	5 11	14 51.57	-10 18.8	1.977	2.978	3.1	20.4
5 21	14 43.28	-27 26.4	2.071	3.053	5.6	20.3	5 21	14 44.05	- 9 29.9	1.983	2.956	6.6	20.5
5 31	14 36.53	-26 36.5	2.110	3.050	8.6	20.4	5 31	14 37.58	- 8 50.4	2.015	2.934	10.1	20.7
6 10	14 31.65	-25 46.8	2.173	3.047	11.5	20.6	6 10	14 32.78	- 8 23.4	2.070	2.912	13.3	20.9
63122	2000 <i>WR</i> ₁₇₃		5 6.6 280°99	5°6/ 3.4	18		112575	2002 <i>PH</i> ₅₂		5 6.6 346°40	0°7/ 6.9	17	
4 1	15 22.20	- 2 47.3	1.814	2.659	14.0	19.3	4 1	15 17.47	-19 12.3	1.194	2.058	18.4	19.5
4 11	15 17.10	- 2 20.3	1.725	2.641	11.0	19.1	4 11	15 14.60	-19 10.1	1.121	2.050	14.2	19.2
4 21	15 9.65	- 1 56.9	1.659	2.623	7.8	18.8	4 21	15 8.57	-18 54.7	1.066	2.043	9.2	18.9
5 1	15 0.49	- 1 41.9	1.618	2.605	5.7	18.7	5 1	15 0.20	-18 27.7	1.034	2.037	3.6	18.6
5 11	14 50.59	- 1 39.9	1.604	2.587	6.6	18.7	5 11	14 50.88	-17 53.3	1.024	2.032	2.5	18.5
5 21	14 41.00	- 1 53.7	1.616	2.569	9.6	18.8	5 21	14 42.17	-17 17.4	1.038	2.028	8.3	18.8
5 31	14 32.77	- 2 24.8	1.652	2.550	13.2	19.0	5 31	14 35.48	-16 47.2	1.073	2.025	13.6	19.1
6 10	14 26.65	- 3 12.4	1.710	2.532	16.4	19.2	6 10	14 31.78	-16 28.4	1.128	2.024	18.2	19.3
342033	2008 <i>RW</i> ₁₁₁		5 6.6 226°32	1°0/ 7.4	18		461958	2006 <i>UW</i> ₅₁		5 6.6 340°99	5°0/ 8.3	17	
4 1	15 20.48	-21 40.7	2.293	3.109	12.4	21.7	4 1	15 27.30	-24 36.1	1.469	2.292	17.8	20.7
4 11	15 15.41	-21 25.5	2.197	3.099	9.6	21.5	4 11	15 21.93	-25 51.8	1.389	2.289	14.2	20.4
4 21	15 8.38	-20 59.9	2.124	3.089	6.3	21.3	4 21	15 13.21	-26 57.4	1.329	2.285	10.2	20.2
5 1	14 59.98	-20 24.8	2.077	3.078	2.7	21.0	5 1	15 1.94	-27 48.3	1.292	2.282	6.3	19.9
5 11	14 51.02	-19 42.7	2.059	3.066	1.8	20.9	5 11	14 49.46	-28 21.8	1.282	2.280	5.2	19.9
5 21	14 42.40	-18 57.5	2.070	3.055	5.4	21.1	5 21	14 37.42	-28 38.5	1.296	2.278	8.3	20.0
5 31	14 34.94	-18 13.6	2.108	3.043	8.9	21.3	5 31	14 27.36	-28 42.7	1.335	2.276	12.5	20.3
6 10	14 29.28	-17 35.4	2.171	3.030	12.1	21.5	6 10	14 20.37	-28 41.3	1.395	2.274	16.4	20.5
51347	2000 <i>QZ</i> ₁₆₅		5 6.6 225°40	0°4/ 7.2	18		36348	2000 <i>NS</i> ₂₃		5 6.6 174°94	5°6/30.6	18	
4 1	15 10.27	-20 11.1	4.933	5.742	6.3	19.6	4 1	15 17.23	+ 3 48.5	3.065	3.887	9.4	19.8
4 11	15 6.78	-19 53.7	4.836	5.736	4.8	19.5	4 11	15 12.29	+ 4 40.0	2.997	3.890	7.7	19.7
4 21	15 2.52	-19 32.0	4.765	5.730	3.1	19.4	4 21	15 6.09	+ 5 26.0	2.956	3.892	6.2	19.6
5 1	14 57.76	-19 6.6	4.722	5.724	1.2	19.2	5 1	14 59.08	+ 6 2.7	2.941	3.894	5.6	19.5
5 11	14 52.81	-18 39.1	4.710	5.717	0.8	19.2	5 11	14 51.83	+ 6 27.2	2.955	3.895	6.3	19.6
5 21	14 48.02	-18 10.9	4.728	5.711	2.7	19.3	5 21	14 44.88	+ 6 37.5	2.996	3.895	7.8	19.7
5 31	14 43.68	-17 43.6	4.775	5.705	4.4	19.5	5 31	14 38.75	+ 6 32.8	3.062	3.896	9.6	19.8
6 10	14 40.08	-17 18.8	4.848	5.698	6.1	19.6	6 10	14 33.84	+ 6 13.9	3.150	3.895	11.3	19.9
151753	2003 <i>EX</i>		5 6.6 327°50	4°3/ 8.5	18		330831	2009 <i>FS</i> ₂₉		5 6.6 86°34	3°2/ 8.3	18	
4 1	15 22.86	-25 14.8	1.548	2.373	16.9	19.2	4 1	15 26.67	-24 28.2	1.497	2.320	17.5	21.4
4 11	15 18.33	-26 3.1	1.463	2.365	13.5	19.0	4 11	15 20.80	-24 48.3	1.437	2.339	13.7	21.2
4 21	15 10.80	-26 39.2	1.399	2.357	9.6	18.7	4 21	15 12.03	-24 53.4	1.398	2.359	9.3	21.0
5 1	15 1.00	-27 0.1	1.358	2.349	5.8	18.5	5 1	15 1.33	-24 42.5	1.382	2.378	4.9	20.8
5 11	14 50.17	-27 5.1	1.342	2.342	4.5	18.4	5 11	14 50.09	-24 17.7	1.393	2.396	3.5	20.8
5 21	14 39.74	-26 56.3	1.352	2.336	7.6	18.5	5 21	14 39.72	-23 43.8	1.429	2.415	7.1	21.0
5 31	14 31.10	-26 39.0	1.385	2.330	11.8	18.8	5 31	14 31.42	-23 7.4	1.490	2.433	11.2	21.3
6 10	14 25.23	-26 19.9	1.440	2.324	15.7	19.0	6 10	14 25.91	-22 35.0	1.573	2.451	14.9	21.6
404	Arsinoë		5 6.6 4°48	10°1/ 2.8	18		255605	2006 <i>PZ</i> ₁₁		5 6.6 265°52	0°0/ 6.3	17	
4 1	15 20.03	+ 4 18.0	1.215	2.079	18.2	12.0	4 1	15 21.46	-18 39.8	1.665	2.504	15.3	21.8
4 11	15 16.06	+ 4 52.1	1.160	2.079	14.8	11.7	4 11	15 16.90	-18 20.2	1.571	2.488	11.8	21.6
4 21	15 9.18	+ 5 11.6	1.124	2.079	11.8	11.6	4 21	15 9.71	-17 49.3	1.499	2.472	7.5	21.3
5 1	15 0.31	+ 5 8.4	1.110	2.081	10.1	11.5	5 1	15 0.58	-17 8.6	1.452	2.456	2.8	21.0
5 11	14 50.81	+ 4 37.3	1.117	2.084	11.0	11.5	5 11	14 50.59	-16 22.2	1.432	2.439	2.2	20.9
5 21	14 42.08	+ 3 37.5	1.147	2.089	13.7	11.7	5 21	14 40.96	-15 35.3	1.438	2.422	7.2	21.1
5 31	14 35.33	+ 2 11.9	1.197	2.095	17.1	11.9	5 31	14 32.87	-14 54.0	1.468	2.405	11.8	21.4
6 10	14 31.32	+ 0 26.2	1.265	2.102	20.3	12.1	6 10	14 27.18	-14 23.5	1.520	2.388	15.9	21.6
87637	2000 <i>RD</i> ₆₇		5 6.6 269°71	1°3/ 5.6	18		217889	2001 <i>RH</i> ₉₅		5 6.6 222°39	1°7/ 7.7	17	
4 1	15 20.35	-15 29.5	2.040	2.875	13.0	20.0	4 1	15 21.99	-22 27.1	1.871	2.694	14.5	21.0
4 11	15 15.63	-14 53.9	1.933	2.849	9.9	19.7	4 11	15 16.98	-22 24.8	1.784	2.689	11.3	20.8
4 21	15 8.71	-14 9.7	1.850	2.823	6.3	19.5	4 21	15 9.58	-22 10.5	1.719	2.684	7.5	20.6
5 1	15 0.16	-13 19.5	1.793	2.796	2.4	19.2	5 1	15 0.47	-21 44.6	1.679	2.678	3.5	20.3
5 11	14 50.87	-12 27.5	1.764	2.768	2.7	19.1	5 11	14 50.70	-21 9.3	1.666	2.672	2.3	20.2
5 21	14 41.79	-11 38.5	1.763	2.740	6.9	19.3	5 21	14 41.37	-20 29.0	1.681	2.667	6.2	20.4
5 31	14 33.89	-10 57.4	1.788	2.712	10.9	19.5	5 31	14 33.50	-19 48.9	1.721	2.660	10.2	20.7
6 10	14 27.92	-10 28.4	1.836	2.683	14.5	19.7	6 10	14 27.86	-19 14.3	1.784	2.654	13.8	20.9
910	Anneliese		5 6.6 335°08	0°4/ 6.4	18 A		508300	2015 <i>KQ</i> ₃₇		5 6.6 229°27	5°9/ 1.3	18	</

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5 6.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
333146	2012 <i>AH</i> ₂₀		5 6.6 123°89	1.2°/ 7.4 18			173805	2001 <i>SO</i> ₂₃₃		5 6.6 151°22	0.6°/ 6.0 17		
4 1	15 25.34	-21 21.3	1.803	2.624	15.0	22.1	4 1	15 18.66	-15 51.0	2.929	3.749	9.9	21.8
4 11	15 19.30	-21 13.2	1.735	2.640	11.5	21.9	4 11	15 13.47	-15 31.6	2.850	3.759	7.4	21.7
4 21	15 10.88	-20 53.5	1.690	2.656	7.5	21.7	4 21	15 6.89	-15 7.3	2.797	3.767	4.6	21.5
5 1	15 0.88	-20 23.2	1.670	2.671	3.2	21.5	5 1	14 59.41	-14 39.9	2.773	3.776	1.7	21.3
5 11	14 50.45	-19 45.5	1.678	2.685	2.1	21.4	5 11	14 51.66	-14 11.7	2.778	3.784	1.6	21.3
5 21	14 40.71	-19 4.8	1.714	2.699	6.2	21.7	5 21	14 44.24	-13 45.3	2.813	3.791	4.6	21.5
5 31	14 32.64	-18 26.6	1.776	2.712	10.2	22.0	5 31	14 37.74	-13 23.1	2.876	3.798	7.3	21.7
6 10	14 26.90	-17 55.6	1.861	2.724	13.6	22.2	6 10	14 32.58	-13 7.4	2.964	3.804	9.7	21.9
57347	2001 <i>QQ</i> ₂₇₉		5 6.6 257°39	4.8°/ 3.3 18			170199	2003 <i>OV</i> ₁₆		5 6.6 298°84	2.0°/ 5.4 18		
4 1	15 19.57	- 3 13.9	2.168	3.009	12.1	19.1	4 1	15 18.86	-15 30.3	1.361	2.222	16.8	20.4
4 11	15 14.63	- 2 44.0	2.090	3.003	9.4	18.9	4 11	15 15.42	-14 48.3	1.272	2.202	12.9	20.1
4 21	15 7.84	- 2 16.9	2.035	2.998	6.7	18.7	4 21	15 9.03	-13 54.1	1.204	2.182	8.2	19.8
5 1	14 59.79	- 1 56.6	2.007	2.992	4.9	18.6	5 1	15 0.41	-12 51.9	1.159	2.162	3.2	19.4
5 11	14 51.28	- 1 46.9	2.006	2.987	5.6	18.6	5 11	14 50.79	-11 48.0	1.138	2.143	3.7	19.4
5 21	14 43.15	- 1 50.0	2.032	2.981	8.2	18.8	5 21	14 41.55	-10 50.3	1.142	2.124	9.1	19.6
5 31	14 36.16	- 2 7.5	2.084	2.975	11.1	19.0	5 31	14 34.05	-10 6.1	1.169	2.105	14.2	19.9
6 10	14 30.90	- 2 38.9	2.157	2.970	13.8	19.1	6 10	14 29.27	- 9 40.5	1.214	2.087	18.8	20.1
497691	2006 <i>SO</i> ₆₆		5 6.6 200°04	0.2°/ 6.4 17			41484	2000 <i>QB</i> ₄₄		5 6.6 141°72	3.9°/ 3.9 18		
4 1	15 22.66	-18 0.2	2.138	2.962	12.9	23.3	4 1	15 23.12	- 9 4.4	1.792	2.635	14.2	19.8
4 11	15 17.10	-17 37.4	2.049	2.958	9.8	23.1	4 11	15 17.51	- 8 7.7	1.727	2.647	10.7	19.6
4 21	15 9.47	-17 5.9	1.983	2.953	6.2	22.8	4 21	15 9.70	- 7 8.1	1.686	2.657	7.0	19.4
5 1	15 0.40	-16 27.6	1.944	2.948	2.3	22.5	5 1	15 0.47	- 6 11.1	1.672	2.668	4.2	19.2
5 11	14 50.79	-15 45.6	1.934	2.941	1.9	22.5	5 11	14 50.85	- 5 22.1	1.685	2.677	5.1	19.3
5 21	14 41.59	-15 4.2	1.953	2.934	5.9	22.8	5 21	14 41.86	- 4 45.8	1.724	2.686	8.5	19.5
5 31	14 33.66	-14 27.6	1.999	2.927	9.7	23.0	5 31	14 34.40	- 4 25.5	1.789	2.694	12.0	19.7
6 10	14 27.66	-13 59.7	2.068	2.918	13.0	23.2	6 10	14 29.07	- 4 22.0	1.875	2.701	15.1	20.0
84217	2002 <i>RW</i> ₁₇₉		5 6.6 167°25	1°0/ 5.7 18			90054	2002 <i>VC</i> ₃₁		5 6.6 95°16	1°1/ 5.8 18		
4 1	15 18.67	-15 27.3	2.476	3.305	11.2	20.5	4 1	15 19.48	-14 20.5	2.144	2.980	12.4	19.8
4 11	15 13.74	-14 56.8	2.396	3.308	8.4	20.3	4 11	15 14.58	-14 6.1	2.070	2.986	9.4	19.6
4 21	15 7.17	-14 20.4	2.339	3.312	5.3	20.1	4 21	15 7.81	-13 46.9	2.019	2.993	5.8	19.4
5 1	14 59.53	-13 40.5	2.311	3.314	2.0	19.9	5 1	14 59.79	-13 24.9	1.996	2.999	2.2	19.1
5 11	14 51.53	-13 0.3	2.312	3.317	2.1	19.9	5 11	14 51.37	-13 3.3	2.000	3.006	2.3	19.2
5 21	14 43.90	-12 23.3	2.341	3.318	5.4	20.1	5 21	14 43.39	-12 45.0	2.033	3.012	6.0	19.4
5 31	14 37.34	-11 52.7	2.398	3.320	8.6	20.3	5 31	14 36.63	-12 33.1	2.092	3.018	9.4	19.6
6 10	14 32.34	-11 31.0	2.479	3.321	11.3	20.5	6 10	14 31.67	-12 29.7	2.174	3.024	12.4	19.8
209966	2006 <i>GC</i> ₅₄		5 6.6 23°86	0.7°/ 6.3 17			112991	2002 <i>RG</i> ₃₃		5 6.6 226°54	5°0/ 1.8 18		
4 1	15 22.35	-15 45.1	1.290	2.148	17.7	20.6	4 1	15 17.19	- 4 3.9	2.377	3.218	11.2	20.1
4 11	15 17.94	-15 43.3	1.223	2.150	13.5	20.4	4 11	15 12.71	- 2 48.7	2.296	3.210	8.7	19.9
4 21	15 10.47	-15 33.3	1.176	2.153	8.5	20.1	4 21	15 6.58	- 1 33.1	2.240	3.201	6.3	19.8
5 1	15 0.86	-15 17.5	1.152	2.156	3.1	19.8	5 1	14 59.34	- 0 22.4	2.211	3.192	5.0	19.7
5 11	14 50.47	-14 59.5	1.153	2.160	2.8	19.8	5 11	14 51.71	+ 0 38.0	2.211	3.182	6.0	19.7
5 21	14 40.80	-14 44.2	1.178	2.164	8.2	20.1	5 21	14 44.40	+ 1 24.1	2.238	3.172	8.4	19.8
5 31	14 33.15	-14 36.3	1.226	2.169	13.2	20.4	5 31	14 38.09	+ 1 53.1	2.290	3.162	11.0	20.0
6 10	14 28.38	-14 39.3	1.294	2.174	17.4	20.7	6 10	14 33.33	+ 2 4.3	2.363	3.151	13.5	20.1
313413	2002 <i>PK</i> ₁₇₅		5 6.6 252°88	5°9/30.4 18			208429	2001 <i>TM</i> ₄₇		5 6.6 252°54	4°6/ 2.6 18		
4 1	15 14.82	+ 2 31.0	2.720	3.554	10.1	20.5	4 1	15 16.72	- 5 5.3	2.241	3.087	11.6	20.3
4 11	15 10.70	+ 3 32.9	2.648	3.549	8.2	20.3	4 11	15 12.44	- 4 5.9	2.163	3.081	9.0	20.1
4 21	15 5.21	+ 4 30.2	2.601	3.544	6.6	20.2	4 21	15 6.45	- 3 6.4	2.109	3.074	6.3	19.9
5 1	14 58.81	+ 5 18.2	2.580	3.538	5.9	20.2	5 1	14 59.30	- 2 11.5	2.082	3.068	4.7	19.8
5 11	14 52.10	+ 5 53.0	2.587	3.532	6.7	20.2	5 11	14 51.75	- 1 26.3	2.082	3.062	5.6	19.9
5 21	14 45.68	+ 6 12.1	2.620	3.527	8.5	20.3	5 21	14 44.54	- 0 54.3	2.110	3.055	8.1	20.0
5 31	14 40.12	+ 6 14.4	2.678	3.521	10.5	20.4	5 31	14 38.41	- 0 38.1	2.162	3.049	11.0	20.2
6 10	14 35.87	+ 6 0.3	2.756	3.516	12.4	20.6	6 10	14 33.88	- 0 38.3	2.236	3.042	13.6	20.3
341870	2008 <i>GS</i> ₃₁		5 6.6 302°37	0.7°/ 5.8 18			492291	2013 <i>YE</i> ₉₆		5 6.6 178°46	0.4°/ 6.9 17		
4 1	15 13.79	-12 57.3	4.116	4.939	7.2	20.0	4 1	15 19.58	-19 32.1	2.287	3.109	12.2	22.2
4 11	15 9.55	-12 59.7	4.023	4.933	5.4	19.8	4 11	15 14.64	-19 15.2	2.203	3.110	9.3	22.0
4 21	15 4.33	-13 0.5	3.956	4.926	3.4	19.7	4 21	15 7.86	-18 49.7	2.142	3.111	5.9	21.8
5 1	14 58.47	-13 0.5	3.918	4.920	1.3	19.5	5 1	14 59.82	-18 16.9	2.109	3.111	2.3	21.5
5 11	14 52.36	-13 1.0	3.910	4.914	1.4	19.5	5 11	14 51.35	-17 39.8	2.104	3.111	1.6	21.5
5 21	14 46.41	-13 3.0	3.932	4.908	3.5	19.7	5 21	14 43.28	-17 1.9	2.127	3.111	5.3	21.7
5 31	14 41.01	-13 7.9	3.983	4.902	5.6	19.8	5 31	14 36.37	-16 27.2	2.178	3.111	8.8	22.0
6 10	14 36.50	-13 16.5	4.060	4.896	7.4	19.9	6 10	14 31.21	-15 59.3	2.252	3.110	11.8	22.1
18397	1992 <i>SF</i> ₁₄		5 6.6 242°26	0.3°/ 6.9 18			480558	2015 <i>MM</i> ₆₃		5 6.6 353°25	7°5/13.1 16		
4 1	15 20.78	-21 37.2	2.350	3.164	12.2	19.6	4 1	15 18.07	-39 29.8	1.931	2.689	16.4	20.0
4 11	15 15.63	-20 45.5	2.242	3.145	9.4	19.4	4 11	15 14.34	-39 42.2	1.844	2.685	14.1	19.8
4 21	15 8.54	-19 40.6	2.158	3.125	6.1	19.1	4 21	15 8.04	-39 31.0	1.776	2.682	11.4	19.6
5 1	15 0.08	-18 24.4	2.102	3.105	2.3	18.8	5 1	14 59.96	-38 53.3	1.730	2.679	9.0	19.4
5 11	14 51.08	-17 1.2	2.076	3.083	1.7	18.7	5 11	14 51.25	-37 49.8	1.708	2.677	7.6	19.3
5 21	14 42.38	-15 36.4	2.080	3.061	5.6	19.0	5 21	14 43.11	-36 24.6	1.711	2.676	8.2	19.4
5 31	14 34.81	-14 15.9	2.111	3.039	9.3	19.2	5 31	14 36.65	-34 45.6	1.739	2.675	10.4	19.5
6 10	14 29.01	-13 5.2	2.168	3.015	12.5	19.3	6 10	14 32.59	-33 2.0	1.791	2.675	13.1	19.7
118975	2000 <i>WB</i> ₁₈₀		5 6.6 255°60	1°1/ 5.6 18			501977	2014 <i>YE</i> ₃₁		5 6.6 90°00	3°9/		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
265720	2005 <i>UH</i> ₃₆₆		5 6.6 133°71	2.6/ 4.6	18		388822	2008 <i>CS</i> ₁₀₃		5 6.6 83°16	3.8/ 3.1	17	
4 1	15 18.97	-13 34.5	1.833	2.679	13.8	20.5	4 1	15 15.94	-7 37.8	2.286	3.132	11.4	21.0
4 11	15 14.45	-12 31.1	1.761	2.684	10.3	20.3	4 11	15 11.77	-6 34.8	2.217	3.137	8.6	20.8
4 21	15 7.83	-11 20.2	1.713	2.688	6.5	20.1	4 21	15 5.97	-5 30.2	2.172	3.142	5.8	20.6
5 1	14 59.83	-10 6.6	1.690	2.692	3.0	19.9	5 1	14 59.14	-4 28.7	2.155	3.147	3.9	20.5
5 11	14 51.40	-8 56.4	1.695	2.695	3.8	20.0	5 11	14 51.99	-3 35.0	2.165	3.152	4.8	20.6
5 21	14 43.51	-7 55.6	1.728	2.699	7.6	20.2	5 21	14 45.24	-2 53.1	2.203	3.156	7.4	20.7
5 31	14 37.03	-7 8.8	1.785	2.702	11.3	20.4	5 31	14 39.57	-2 25.6	2.267	3.161	10.2	20.9
6 10	14 32.55	-6 38.7	1.864	2.706	14.5	20.6	6 10	14 35.45	-2 13.5	2.352	3.166	12.8	21.1
307125	2002 <i>CZ</i> ₁₂₈		5 6.6 322°61	3.9/ 9.8	18		301010	2008 <i>HB</i> ₆₁		5 6.6 286°17	2.5/ 2.5	18	
4 1	15 18.56	-29 47.6	2.275	3.067	13.3	20.2	4 1	15 9.72	-6 12.0	4.428	5.263	6.5	20.5
4 11	15 14.12	-29 55.1	2.186	3.064	10.7	20.0	4 11	15 6.45	-5 18.3	4.345	5.258	4.9	20.4
4 21	15 7.65	-29 48.1	2.118	3.061	7.8	19.8	4 21	15 2.37	-4 24.2	4.289	5.254	3.4	20.3
5 1	14 59.79	-29 25.8	2.076	3.058	5.1	19.6	5 1	14 57.79	-3 32.0	4.262	5.249	2.5	20.2
5 11	14 51.40	-28 49.7	2.060	3.055	3.9	19.6	5 11	14 53.04	-2 44.2	4.265	5.244	3.0	20.3
5 21	14 43.40	-28 2.9	2.072	3.053	5.7	19.7	5 21	14 48.45	-2 2.6	4.298	5.240	4.5	20.4
5 31	14 36.64	-27 10.5	2.111	3.050	8.6	19.8	5 31	14 44.34	-1 29.0	4.358	5.235	6.1	20.5
6 10	14 31.77	-26 17.9	2.173	3.048	11.5	20.0	6 10	14 41.00	-1 4.2	4.442	5.230	7.6	20.6
197143	2003 <i>UG</i> ₂₅₁		5 6.6 153°87	0.1/ 6.5	18		59881	1999 <i>RZ</i> ₁₂₁		5 6.6 263°92	0.8/ 5.9	18	
4 1	15 19.28	-18 19.4	2.176	3.004	12.5	21.5	4 1	15 16.29	-17 25.9	2.361	3.193	11.6	19.3
4 11	15 14.46	-17 52.4	2.096	3.008	9.5	21.3	4 11	15 12.14	-16 39.6	2.271	3.185	8.7	19.1
4 21	15 7.75	-17 16.8	2.041	3.012	6.0	21.1	4 21	15 6.28	-15 44.6	2.205	3.178	5.5	18.9
5 1	14 59.79	-16 34.8	2.012	3.015	2.2	20.9	5 1	14 59.28	-14 43.7	2.167	3.170	2.0	18.6
5 11	14 51.42	-15 49.8	2.011	3.018	1.8	20.8	5 11	14 51.87	-13 40.9	2.157	3.163	2.1	18.6
5 21	14 43.49	-15 6.0	2.039	3.021	5.6	21.1	5 21	14 44.80	-12 40.9	2.176	3.155	5.6	18.8
5 31	14 36.78	-14 27.6	2.093	3.023	9.2	21.3	5 31	14 38.78	-11 48.1	2.222	3.148	9.0	19.0
6 10	14 31.87	-13 57.9	2.170	3.026	12.3	21.5	6 10	14 34.35	-11 5.8	2.291	3.140	11.9	19.2
334419	2002 <i>EV</i> ₁₁₃		5 6.6 278°53	6.2/ 9.9	16		316598	2011 <i>UW</i> ₂₈₉		5 6.6 88°20	4.8/ 1.7	18	
4 1	15 24.81	-31 55.0	1.957	2.739	15.4	21.1	4 1	15 15.55	-5 28.9	2.313	3.159	11.3	20.8
4 11	15 19.62	-32 48.0	1.851	2.718	12.9	20.9	4 11	15 11.43	-4 1.1	2.248	3.166	8.6	20.7
4 21	15 11.62	-33 26.8	1.767	2.698	10.0	20.6	4 21	15 5.74	-2 32.6	2.208	3.172	6.1	20.5
5 1	15 1.40	-33 47.2	1.707	2.677	7.3	20.4	5 1	14 59.05	-1 9.2	2.196	3.179	4.8	20.4
5 11	14 50.04	-33 47.2	1.673	2.656	6.3	20.3	5 11	14 52.08	+0 3.6	2.212	3.185	5.8	20.5
5 21	14 38.84	-33 28.0	1.665	2.635	7.9	20.4	5 21	14 45.52	+1 1.4	2.255	3.192	8.2	20.7
5 31	14 29.12	-32 54.2	1.682	2.614	11.0	20.5	5 31	14 40.01	+1 41.4	2.323	3.198	10.8	20.8
6 10	14 21.88	-32 13.1	1.722	2.593	14.2	20.7	6 10	14 36.02	+2 3.0	2.413	3.205	13.1	21.0
291528	2006 <i>EX</i> ₁₃		5 6.6 124°52	1.2/ 5.7	17		163108	2002 <i>AS</i> ₁₅₂		5 6.6 116°02	4.2/ 9.1	18	
4 1	15 19.18	-15 24.2	1.897	2.738	13.6	21.0	4 1	15 25.42	-27 40.3	1.576	2.388	17.3	20.2
4 11	15 14.64	-14 53.8	1.820	2.739	10.3	20.7	4 11	15 19.98	-27 56.0	1.505	2.398	13.8	20.0
4 21	15 7.99	-14 16.1	1.766	2.740	6.4	20.5	4 21	15 11.65	-27 54.2	1.454	2.407	9.8	19.8
5 1	14 59.91	-13 34.0	1.738	2.741	2.4	20.3	5 1	15 1.31	-27 33.3	1.427	2.417	5.8	19.5
5 11	14 51.35	-12 51.7	1.737	2.742	2.6	20.3	5 11	14 50.31	-26 55.1	1.425	2.426	4.3	19.5
5 21	14 43.26	-12 13.7	1.763	2.743	6.6	20.5	5 21	14 40.04	-26 4.7	1.450	2.435	7.2	19.7
5 31	14 36.52	-11 44.3	1.815	2.743	10.5	20.8	5 31	14 31.74	-25 9.4	1.500	2.443	11.1	19.9
6 10	14 31.78	-11 26.4	1.889	2.744	13.8	21.0	6 10	14 26.18	-24 17.1	1.571	2.451	14.8	20.2
432366	2009 <i>WH</i> ₅₇		5 6.6 115°02	2.4/ 5.4	15		295451	2008 <i>OW</i> ₂₃		5 6.6 257°64	3.0/ 4.4	18	
4 1	15 24.56	-9 48.2	1.877	2.714	13.9	21.2	4 1	15 19.46	-10 50.4	2.038	2.880	12.7	21.3
4 11	15 18.65	-9 51.5	1.805	2.721	10.5	21.0	4 11	15 14.84	-10 4.6	1.944	2.864	9.7	21.1
4 21	15 10.49	-9 54.1	1.756	2.728	6.7	20.8	4 21	15 8.16	-9 13.9	1.874	2.847	6.3	20.8
5 1	15 0.82	-9 58.3	1.734	2.734	3.1	20.6	5 1	15 0.02	-8 22.2	1.831	2.830	3.3	20.6
5 11	14 50.65	-10 6.4	1.739	2.741	3.4	20.6	5 11	14 51.27	-7 34.4	1.815	2.812	4.1	20.6
5 21	14 40.99	-10 20.4	1.773	2.747	7.1	20.9	5 21	14 42.83	-6 55.1	1.827	2.794	7.6	20.8
5 31	14 32.81	-10 41.9	1.832	2.753	10.8	21.1	5 31	14 35.57	-6 28.2	1.864	2.776	11.2	21.0
6 10	14 26.75	-11 12.0	1.914	2.759	14.1	21.3	6 10	14 30.18	-6 16.1	1.923	2.757	14.5	21.1
430082	2013 <i>SO</i> ₅₅		5 6.6 228°15	0.1/ 6.7	17		21956	Thangada		5 6.6 42°95	6.0/ 2.4	18	
4 1	15 22.96	-17 51.5	2.221	3.042	12.6	21.8	4 1	15 17.79	-4 3.5	1.709	2.566	14.1	18.1
4 11	15 17.39	-17 49.2	2.124	3.031	9.6	21.6	4 11	15 13.61	-2 56.3	1.650	2.573	10.9	17.9
4 21	15 9.74	-17 39.9	2.050	3.019	6.2	21.3	4 21	15 7.32	-1 50.8	1.614	2.580	7.8	17.8
5 1	15 0.58	-17 24.4	2.003	3.006	2.3	21.1	5 1	14 59.67	-0 53.6	1.603	2.588	6.0	17.7
5 11	14 50.79	-17 5.0	1.986	2.993	1.7	21.0	5 11	14 51.62	-0 10.7	1.618	2.596	7.1	17.7
5 21	14 41.29	-16 44.4	1.996	2.979	5.7	21.2	5 21	14 44.15	+0 13.6	1.658	2.605	9.9	17.9
5 31	14 32.97	-16 26.2	2.035	2.964	9.4	21.4	5 31	14 38.12	+0 17.6	1.721	2.613	13.1	18.1
6 10	14 26.52	-16 13.9	2.097	2.949	12.7	21.6	6 10	14 34.10	+0 1.8	1.804	2.622	15.9	18.3
168874	2000 <i>WA</i> ₁₅		5 6.6 170°85	1.4/ 7.6	18		214804	2006 <i>UP</i> ₂₁₀		5 6.6 186°94	1.9/ 8.1	16	
4 1	15 24.72	-22 10.8	2.033	2.845	13.9	21.1	4 1	15 20.38	-23 21.9	2.634	3.437	11.3	21.4
4 11	15 18.77	-22 0.7	1.950	2.850	10.7	20.9	4 11	15 15.13	-23 31.8	2.544	3.437	8.8	21.2
4 21	15 10.58	-21 39.1	1.890	2.854	7.0	20.7	4 21	15 8.15	-23 33.0	2.478	3.436	6.0	21.0
5 1	15 0.86	-21 6.7	1.857	2.857	3.1	20.4	5 1	14 59.97	-23 25.5	2.440	3.435	3.0	20.8
5 11	14 50.62	-20 26.2	1.853	2.859	2.0	20.4	5 11	14 51.35	-23 10.4	2.430	3.434	2.1	20.8
5 21	14 40.88	-19 41.7	1.876	2.861	5.8	20.6	5 21	14 43.04	-22 50.0	2.449	3.433	4.7	20.9
5 31	14 32.60	-18 58.4	1.927	2.862	9.6	20.8	5 31	14 35.76	-22 27.6	2.496	3.431	7.7	21.1
6 10	14 26.44	-18 21.2	2.002	2.861	13.0	21.1	6 10	14 30.08	-22 6.6	2.568	3.429	10.4	21.3
233577	2007 <i>QU</i> ₁		5 6.6 295°89	0.8/ 5.9	18		333697	2008 <i>UG</i> ₃₆₄		5 6.6 262°34	5.2/ 2.9	18	
4 1	15 17.78												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
496210	2011 <i>UY</i> ₈		5 6.6 260°00	0°3/ 6.4	14 C		507832	2014 <i>EQ</i> ₃₁		5 6.6 357°64	10°5/25.0	17	
4 1	15 23.24	-18 19.9	1.593	2.432	15.9	22.6	4 1	15 13.74	+ 8 3.3	1.893	2.736	13.5	20.4
4 11	15 18.49	-17 53.8	1.495	2.412	12.2	22.3	4 11	15 10.48	+10 26.4	1.842	2.734	11.7	20.2
4 21	15 10.90	-17 15.4	1.418	2.391	7.8	22.0	4 21	15 5.35	+12 39.6	1.816	2.733	10.6	20.1
5 1	15 1.15	-16 26.4	1.366	2.369	2.9	21.6	5 1	14 58.98	+14 33.0	1.814	2.732	10.7	20.2
5 11	14 50.39	-15 31.2	1.340	2.347	2.5	21.6	5 11	14 52.23	+15 58.9	1.836	2.731	12.0	20.2
5 21	14 39.95	-14 35.9	1.341	2.325	7.7	21.8	5 21	14 45.91	+16 53.3	1.881	2.731	13.9	20.3
5 31	14 31.10	-13 47.4	1.366	2.302	12.7	22.0	5 31	14 40.81	+17 15.3	1.945	2.732	15.9	20.5
6 10	14 24.82	-13 11.5	1.413	2.278	17.0	22.2	6 10	14 37.48	+17 7.7	2.025	2.733	17.8	20.6
39901	1998 <i>FW</i> ₂₇		5 6.6 107°44	0°6/ 6.9	18		236112	2005 <i>SP</i> ₇		5 6.6 59°49	0°8/ 6.2	18	
4 1	15 24.22	-20 15.1	1.635	2.466	15.9	19.7	4 1	15 21.63	-18 10.2	1.193	2.053	18.7	20.3
4 11	15 18.67	-19 55.2	1.571	2.483	12.1	19.5	4 11	15 17.45	-17 29.6	1.136	2.064	14.2	20.1
4 21	15 10.59	-19 23.3	1.529	2.499	7.7	19.3	4 21	15 10.16	-16 35.0	1.097	2.075	8.9	19.8
5 1	15 0.88	-18 41.2	1.512	2.514	3.0	19.0	5 1	15 0.80	-15 30.7	1.082	2.086	3.2	19.5
5 11	14 50.73	-17 53.4	1.522	2.529	2.0	19.0	5 11	14 50.86	-14 24.0	1.091	2.098	3.0	19.5
5 21	14 41.33	-17 5.2	1.558	2.544	6.7	19.3	5 21	14 41.84	-13 23.2	1.124	2.110	8.6	19.9
5 31	14 33.72	-16 22.4	1.621	2.558	10.9	19.6	5 31	14 35.00	-12 35.7	1.179	2.122	13.6	20.2
6 10	14 28.53	-15 49.8	1.705	2.572	14.5	19.8	6 10	14 31.09	-12 5.9	1.254	2.134	17.8	20.5
406527	2007 <i>VH</i> ₂₆₀		5 6.6 154°83	2°4/ 4.9	18		20038	Arasaki		5 6.6 149°83	1°0/ 5.4	18 R	
4 1	15 23.07	-12 27.0	1.990	2.825	13.3	22.3	4 1	15 15.57	-12 1.2	4.014	4.835	7.4	18.6
4 11	15 17.36	-11 41.0	1.918	2.834	10.0	22.1	4 11	15 10.86	-11 54.5	3.934	4.842	5.5	18.4
4 21	15 9.60	-10 49.8	1.870	2.843	6.3	21.9	4 21	15 5.17	-11 46.2	3.880	4.850	3.5	18.3
5 1	15 0.51	-9 57.1	1.850	2.850	2.9	21.7	5 1	14 58.85	-11 37.4	3.856	4.857	1.5	18.2
5 11	14 51.01	-9 7.9	1.858	2.857	3.6	21.8	5 11	14 52.34	-11 29.7	3.862	4.864	1.7	18.2
5 21	14 42.06	-8 26.5	1.894	2.864	7.1	22.0	5 21	14 46.03	-11 24.3	3.898	4.871	3.7	18.3
5 31	14 34.51	-7 56.8	1.956	2.869	10.7	22.2	5 31	14 40.34	-11 22.6	3.964	4.877	5.7	18.5
6 10	14 28.94	-7 40.7	2.040	2.874	13.8	22.4	6 10	14 35.59	-11 25.6	4.055	4.883	7.6	18.6
106330	2000 <i>UU</i> ₁₀₄		5 6.6 266°92	0°0/ 6.4	18		281512	2008 <i>TZ</i> ₃₆		5 6.6 122°93	4°9/ 2.7	18	
4 1	15 21.97	-16 25.2	2.555	3.374	11.2	19.7	4 1	15 19.25	- 4 14.9	2.140	2.982	12.2	20.5
4 11	15 16.48	-16 37.7	2.446	3.353	8.6	19.5	4 11	15 14.30	- 3 17.5	2.078	2.993	9.4	20.3
4 21	15 9.12	-16 45.9	2.362	3.331	5.5	19.2	4 21	15 7.60	- 2 21.7	2.040	3.004	6.6	20.1
5 1	15 0.39	-16 50.4	2.307	3.309	2.0	19.0	5 1	14 59.77	- 1 32.2	2.029	3.014	5.0	20.1
5 11	14 51.02	-16 52.3	2.280	3.287	1.6	18.9	5 11	14 51.64	- 0 53.9	2.046	3.024	5.8	20.1
5 21	14 41.80	-16 53.4	2.283	3.265	5.2	19.1	5 21	14 44.00	- 0 29.9	2.089	3.033	8.3	20.3
5 31	14 33.53	-16 56.0	2.314	3.242	8.6	19.3	5 31	14 37.56	- 0 22.1	2.158	3.042	11.1	20.5
6 10	14 26.85	-17 2.5	2.370	3.219	11.6	19.4	6 10	14 32.83	- 0 30.4	2.248	3.051	13.6	20.7
142446	2002 <i>SV</i> ₅₈		5 6.6 320°00	1°0/ 6.1	17		350413	2012 <i>VT</i> ₅₆		5 6.6 191°43	1°2/ 5.6	18	
4 1	15 17.59	-16 38.4	1.315	2.177	17.2	20.0	4 1	15 18.48	-14 29.8	2.464	3.295	11.2	21.4
4 11	15 14.55	-16 13.5	1.230	2.160	13.1	19.7	4 11	15 13.68	-14 3.6	2.380	3.294	8.4	21.3
4 21	15 8.55	-15 37.0	1.165	2.143	8.4	19.4	4 21	15 7.23	-13 32.2	2.320	3.293	5.3	21.0
5 1	15 0.31	-14 51.8	1.122	2.126	3.1	19.0	5 1	14 59.66	-12 58.0	2.288	3.291	2.0	20.8
5 11	14 51.07	-14 3.3	1.104	2.111	3.0	18.9	5 11	14 51.71	-12 24.0	2.285	3.289	2.3	20.8
5 21	14 42.26	-13 18.3	1.110	2.096	8.6	19.2	5 21	14 44.09	-11 53.5	2.310	3.287	5.5	21.0
5 31	14 35.23	-12 43.7	1.138	2.082	13.8	19.5	5 31	14 37.51	-11 29.6	2.363	3.284	8.7	21.2
6 10	14 30.97	-12 24.7	1.185	2.068	18.4	19.7	6 10	14 32.49	-11 14.6	2.439	3.282	11.5	21.4
189591	2000 <i>WY</i> ₃₇		5 6.6 229°67	3°0/ 4.3	18		213581	2002 <i>NK</i> ₄₆		5 6.6 289°82	2°2/ 5.3	18	
4 1	15 20.43	- 9 30.4	2.320	3.156	11.6	21.4	4 1	15 19.54	-14 27.2	1.506	2.361	15.8	20.4
4 11	15 15.29	- 8 51.5	2.228	3.143	8.8	21.2	4 11	15 15.58	-13 44.8	1.422	2.349	12.0	20.1
4 21	15 8.32	- 8 9.7	2.160	3.130	5.8	21.0	4 21	15 8.97	-12 52.9	1.360	2.337	7.6	19.9
5 1	15 0.07	- 7 28.4	2.119	3.116	3.2	20.8	5 1	15 0.42	-11 55.7	1.322	2.325	3.1	19.6
5 11	14 51.31	- 6 51.6	2.107	3.102	3.9	20.8	5 11	14 51.09	-10 59.2	1.310	2.313	3.7	19.6
5 21	14 42.84	- 6 22.9	2.123	3.087	7.0	21.0	5 21	14 42.21	-10 9.9	1.323	2.302	8.5	19.8
5 31	14 35.43	- 6 5.3	2.166	3.071	10.2	21.2	5 31	14 34.96	- 9 33.9	1.359	2.290	13.1	20.0
6 10	14 29.70	- 6 0.4	2.232	3.055	13.1	21.3	6 10	14 30.17	- 9 14.7	1.416	2.279	17.1	20.2
279265	2009 <i>VJ</i> ₈₆		5 6.6 96°62	0°5/ 6.1	18		430797	2004 <i>VA</i> ₃₉		5 6.6 221°37	0°6/ 6.2	17	
4 1	15 14.82	-16 9.4	3.224	4.048	9.0	21.9	4 1	15 21.52	-15 41.7	2.097	2.928	12.9	21.9
4 11	15 10.50	-15 45.9	3.152	4.062	6.7	21.7	4 11	15 16.34	-15 33.3	2.009	2.922	9.8	21.7
4 21	15 5.02	-15 17.8	3.105	4.076	4.2	21.6	4 21	15 9.09	-15 18.9	1.945	2.917	6.2	21.4
5 1	14 58.79	-14 47.0	3.087	4.090	1.5	21.4	5 1	15 0.40	-15 0.2	1.907	2.910	2.2	21.2
5 11	14 52.35	-14 15.8	3.098	4.104	1.5	21.4	5 11	14 51.13	-14 39.9	1.897	2.904	2.1	21.1
5 21	14 46.22	-13 46.4	3.138	4.117	4.1	21.6	5 21	14 42.22	-14 21.2	1.916	2.897	6.1	21.4
5 31	14 40.88	-13 21.2	3.207	4.131	6.6	21.8	5 31	14 34.55	-14 7.4	1.961	2.890	9.8	21.6
6 10	14 36.69	-13 2.0	3.301	4.144	8.8	22.0	6 10	14 28.80	-14 1.5	2.029	2.883	13.1	21.8
366568	2002 <i>RH</i> ₂₆₃		5 6.6 221°04	2°5/ 8.3	17		297060	2010 <i>JF</i> ₁		5 6.6 340°88	5°5/ 2.0	15	
4 1	15 22.80	-24 47.4	1.873	2.687	14.8	22.0	4 1	15 10.74	-10 22.5	1.388	2.266	15.5	20.6
4 11	15 17.70	-24 44.6	1.783	2.681	11.7	21.8	4 11	15 9.00	- 8 33.1	1.309	2.247	11.8	20.4
4 21	15 10.14	-24 27.6	1.714	2.674	8.0	21.6	4 21	15 4.82	- 6 32.3	1.251	2.229	7.9	20.1
5 1	15 0.81	-23 56.4	1.671	2.667	4.1	21.3	5 1	14 58.90	- 4 29.7	1.218	2.213	5.6	19.9
5 11	14 50.77	-23 13.2	1.654	2.659	2.8	21.2	5 11	14 52.29	- 2 36.5	1.209	2.198	7.3	20.0
5 21	14 41.17	-22 22.3	1.665	2.651	6.3	21.4	5 21	14 46.12	- 1 2.9	1.224	2.184	11.3	20.1
5 31	14 33.08	-21 29.9	1.702	2.643	10.3	21.6	5 31	14 41.46	+ 0 3.5	1.261	2.172	15.5	20.3
6 10	14 27.27	-20 42.1	1.762	2.634	13.9	21.8	6 10	14 39.08	+ 0 40.1	1.316	2.161	19.2	20.5
376950	2002 <i>ER</i> ₉₇		5 6.6 52°98	0°9/ 6.1	18		514309	2015 <i>XL</i> ₃₈₆		5 6.6 226°96	1°7/ 4.2	1	

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
278382	2007 <i>MO</i> ₇		5 6.6 340°53	0°9/ 6.0 17			429263	2010 <i>CJ</i> ₁₂		5 6.6 74°34	3°0/ 8.9 17		
4 1	15 18.80	-16 43.7	1.750	2.594	14.4	21.1	4 1	15 21.23	-27 5.8	1.883	2.692	15.0	21.5
4 11	15 14.59	-16 12.4	1.672	2.592	10.9	20.9	4 11	15 16.26	-26 57.8	1.817	2.709	11.8	21.3
4 21	15 8.10	-15 31.9	1.616	2.591	6.9	20.6	4 21	15 9.04	-26 34.1	1.772	2.727	8.2	21.1
5 1	15 0.04	-14 45.1	1.586	2.589	2.5	20.3	5 1	15 0.38	-25 55.1	1.752	2.744	4.6	20.9
5 11	14 51.43	-13 56.7	1.582	2.588	2.5	20.3	5 11	14 51.32	-25 3.9	1.759	2.761	3.2	20.8
5 21	14 43.31	-13 11.8	1.605	2.587	6.9	20.6	5 21	14 42.93	-24 5.4	1.793	2.779	5.9	21.1
5 31	14 36.65	-12 35.3	1.653	2.586	11.0	20.8	5 31	14 36.11	-23 5.9	1.853	2.796	9.4	21.3
6 10	14 32.13	-12 11.1	1.722	2.585	14.6	21.1	6 10	14 31.47	-22 11.4	1.937	2.813	12.6	21.5
95914	2003 <i>HT</i> ₄₁		5 6.6 4°32	2°8/ 8.2 17			439389	2013 <i>AM</i> ₁₁₈		5 6.6 251°46	2°8/ 4.5 16		
4 1	15 17.73	-23 46.0	1.342	2.189	17.8	19.0	4 1	15 18.32	- 8 33.3	2.442	3.279	11.1	21.4
4 11	15 14.56	-23 54.9	1.271	2.188	14.0	18.7	4 11	15 13.61	- 8 10.0	2.356	3.272	8.4	21.2
4 21	15 8.44	-23 47.7	1.220	2.188	9.5	18.5	4 21	15 7.23	- 7 45.7	2.294	3.264	5.5	21.0
5 1	15 0.24	-23 24.4	1.191	2.190	4.8	18.2	5 1	14 59.72	- 7 23.2	2.260	3.257	3.1	20.8
5 11	14 51.27	-22 47.9	1.186	2.192	3.2	18.1	5 11	14 51.78	- 7 5.7	2.254	3.249	3.7	20.9
5 21	14 42.94	-22 3.7	1.205	2.195	7.4	18.3	5 21	14 44.14	- 6 55.7	2.276	3.241	6.4	21.0
5 31	14 36.52	-21 19.2	1.247	2.200	12.0	18.6	5 31	14 37.50	- 6 55.3	2.325	3.233	9.4	21.2
6 10	14 32.86	-20 41.4	1.310	2.205	16.2	18.9	6 10	14 32.38	- 7 5.5	2.397	3.225	12.1	21.4
200781	2001 <i>XS</i> ₅₄		5 6.6 138°27	2°6/ 5.2 18			353840	2012 <i>VX</i> ₁₆		5 6.6 5°94	2°8/ 4.9 18		
4 1	15 25.97	-11 20.6	1.762	2.600	14.6	20.7	4 1	15 19.48	- 9 6.9	1.988	2.833	12.9	20.5
4 11	15 19.77	-10 55.7	1.696	2.613	11.0	20.5	4 11	15 14.79	- 8 54.1	1.913	2.833	9.8	20.3
4 21	15 11.24	-10 27.3	1.653	2.625	7.0	20.3	4 21	15 8.10	- 8 40.4	1.861	2.834	6.3	20.1
5 1	15 1.16	- 9 58.7	1.636	2.637	3.2	20.1	5 1	15 0.06	- 8 29.0	1.835	2.835	3.3	19.9
5 11	14 50.63	- 9 34.0	1.647	2.648	3.7	20.1	5 11	14 51.54	- 8 22.7	1.837	2.836	3.8	19.9
5 21	14 40.76	- 9 17.0	1.685	2.658	7.6	20.4	5 21	14 43.44	- 8 24.3	1.866	2.837	7.1	20.1
5 31	14 32.52	- 9 10.7	1.749	2.667	11.4	20.6	5 31	14 36.60	- 8 35.7	1.920	2.838	10.5	20.4
6 10	14 26.55	- 9 16.6	1.835	2.676	14.8	20.9	6 10	14 31.64	- 8 57.7	1.996	2.840	13.6	20.6
505488	2013 <i>WW</i> ₁₄		5 6.6 262°81	1°7/ 8.0 17			442902	2013 <i>CZ</i> ₉		5 6.6 154°96	6°5/ 30.1 18		
4 1	15 20.31	-25 23.1	1.985	2.798	14.2	21.8	4 1	15 16.94	+ 5 6.2	2.722	3.547	10.4	21.4
4 11	15 15.74	-24 41.2	1.881	2.779	11.1	21.6	4 11	15 12.28	+ 6 6.3	2.661	3.552	8.5	21.3
4 21	15 8.88	-23 41.9	1.798	2.760	7.5	21.3	4 21	15 6.24	+ 6 59.7	2.625	3.557	7.0	21.2
5 1	15 0.37	-22 26.0	1.741	2.740	3.6	21.0	5 1	14 59.32	+ 7 41.7	2.615	3.561	6.5	21.1
5 11	14 51.18	-20 57.6	1.713	2.719	2.2	20.9	5 11	14 52.13	+ 8 8.8	2.633	3.565	7.3	21.2
5 21	14 42.35	-19 23.0	1.712	2.699	6.1	21.1	5 21	14 45.30	+ 8 19.0	2.676	3.569	8.9	21.3
5 31	14 34.87	-17 49.9	1.739	2.678	10.2	21.3	5 31	14 39.38	+ 8 11.7	2.744	3.572	10.7	21.4
6 10	14 29.50	-16 25.7	1.789	2.656	13.9	21.5	6 10	14 34.81	+ 7 48.0	2.832	3.576	12.5	21.6
409634	2005 <i>WG</i> ₁₆₀		5 6.6 83°73	5°2/ 3.5 18			287441	2002 <i>XW</i> ₃₃		5 6.6 160°44	2°1/ 8.5 17		
4 1	15 23.48	- 3 24.6	1.881	2.721	13.7	20.8	4 1	15 18.57	-25 47.2	2.235	3.042	13.0	20.6
4 11	15 17.52	- 2 45.5	1.835	2.748	10.5	20.7	4 11	15 14.03	-25 22.1	2.149	3.044	10.1	20.4
4 21	15 9.60	- 2 10.2	1.812	2.775	7.4	20.5	4 21	15 7.59	-24 43.1	2.087	3.045	6.9	20.2
5 1	15 0.50	- 1 43.3	1.816	2.802	5.3	20.5	5 1	14 59.86	-23 51.2	2.050	3.046	3.5	20.0
5 11	14 51.20	- 1 28.7	1.847	2.828	6.1	20.6	5 11	14 51.71	-22 49.7	2.042	3.047	2.3	19.9
5 21	14 42.61	- 1 28.7	1.905	2.853	8.7	20.8	5 21	14 44.01	-21 43.1	2.062	3.048	5.2	20.1
5 31	14 35.52	- 1 43.9	1.988	2.879	11.6	21.0	5 31	14 37.55	-20 36.9	2.109	3.049	8.6	20.3
6 10	14 30.43	- 2 13.5	2.092	2.903	14.2	21.2	6 10	14 32.91	-19 36.5	2.180	3.049	11.7	20.5
522717	2016 <i>LJ</i> ₆₁		5 6.6 226°82	1°1/ 7.6 17			289837	2005 <i>LJ</i> ₂₅		5 6.6 299°49	2°9/ 5.1 17		
4 1	15 18.44	-23 3.1	2.364	3.178	12.1	22.3	4 1	15 20.20	-12 0.0	1.483	2.340	15.9	21.2
4 11	15 13.85	-22 33.1	2.271	3.171	9.4	22.1	4 11	15 16.33	-11 31.8	1.388	2.315	12.2	20.9
4 21	15 7.44	-21 51.3	2.201	3.165	6.2	21.9	4 21	15 9.64	-10 57.4	1.314	2.291	7.8	20.6
5 1	14 59.79	-20 59.1	2.158	3.158	2.7	21.7	5 1	15 0.79	-10 20.7	1.265	2.267	3.6	20.2
5 11	14 51.68	-19 59.6	2.143	3.150	1.7	21.6	5 11	14 50.90	- 9 46.9	1.240	2.243	4.3	20.2
5 21	14 43.94	-18 57.1	2.158	3.143	5.1	21.8	5 21	14 41.27	- 9 21.6	1.241	2.219	9.0	20.4
5 31	14 37.33	-17 56.7	2.199	3.135	8.5	22.0	5 31	14 33.19	- 9 9.8	1.264	2.195	13.9	20.6
6 10	14 32.41	-17 3.0	2.265	3.127	11.6	22.2	6 10	14 27.66	- 9 14.5	1.308	2.171	18.2	20.8
338788	2003 <i>UO</i> ₃₀₈		5 6.6 284°03	1°3/ 5.5 18			372946	2011 <i>BO</i> ₇₃		5 6.6 202°40	2°4/ 8.3 17		
4 1	15 17.44	-16 45.1	1.913	2.754	13.5	20.5	4 1	15 22.19	-24 42.2	2.001	2.812	14.1	21.8
4 11	15 13.42	-15 49.8	1.826	2.746	10.2	20.3	4 11	15 17.07	-24 40.0	1.913	2.810	11.1	21.5
4 21	15 7.32	-14 43.9	1.762	2.737	6.4	20.0	4 21	15 9.67	-24 24.7	1.848	2.807	7.6	21.3
5 1	14 59.78	-13 31.2	1.725	2.728	2.4	19.7	5 1	15 0.68	-23 56.2	1.808	2.803	3.9	21.1
5 11	14 51.70	-12 17.2	1.715	2.719	2.8	19.7	5 11	14 51.08	-23 16.9	1.795	2.800	2.6	21.0
5 21	14 44.03	-11 8.0	1.732	2.710	6.9	20.0	5 21	14 41.91	-22 30.6	1.810	2.796	5.9	21.2
5 31	14 37.66	-10 9.3	1.775	2.702	10.8	20.2	5 31	14 34.15	-21 42.8	1.852	2.791	9.6	21.4
6 10	14 33.24	- 9 25.1	1.840	2.693	14.2	20.4	6 10	14 28.52	-20 59.2	1.917	2.787	13.0	21.6
27647	2312 <i>T-2</i>		5 6.6 75°02	1°6/ 5.6 18			521277	2015 <i>HQ</i> ₁₉₄		5 6.6 234°07	4°8/ 2.1 17		
4 1	15 21.35	-15 20.5	1.599	2.445	15.4	18.3	4 1	15 16.39	- 3 19.9	2.489	3.330	10.8	21.9
4 11	15 16.45	-14 39.6	1.541	2.463	11.6	18.1	4 11	15 12.08	- 2 20.9	2.410	3.324	8.4	21.7
4 21	15 9.18	-13 50.7	1.506	2.481	7.2	17.9	4 21	15 6.24	- 1 23.1	2.357	3.317	6.1	21.5
5 1	15 0.41	-12 57.8	1.496	2.499	2.8	17.7	5 1	14 59.36	- 0 30.8	2.330	3.311	4.8	21.4
5 11	14 51.28	-12 6.4	1.512	2.517	3.1	17.7	5 11	14 52.12	+ 0 11.5	2.332	3.305	5.6	21.5
5 21	14 42.89	-11 21.9	1.555	2.535	7.4	18.0	5 21	14 45.19	+ 0 40.6	2.361	3.298	7.9	21.6
5 31	14 36.19	-10 49.1	1.623	2.552	11.4	18.3	5 31	14 39.21	+ 0 54.5	2.415	3.291	10.4	21.8
6 10	14 31.78	-10 30.4	1.712	2.570	14.9	18.5	6 10	14 34.67	+ 0 52.8	2.491	3.284	12.7	21.9
128822	2004 <i>RK</i> ₃₀₆		5 6.6 256°83	4°0/									

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
87404	2000 QK ₇₆		5 6.6 257°18	0°0/ 6.4 18			280815	2005 US ₁₇		5 6.7 222°66	2°7/ 4.5 18		
4 1	15 21.00	-18 50.2	2.060	2.887	13.2	19.8	4 1	15 18.83	-13 38.1	1.867	2.712	13.6	20.3
4 11	15 16.17	-18 28.0	1.957	2.868	10.1	19.6	4 11	15 14.46	-12 27.5	1.787	2.709	10.3	20.1
4 21	15 9.14	-17 56.0	1.878	2.848	6.5	19.3	4 21	15 7.98	-11 8.4	1.730	2.704	6.5	19.8
5 1	15 0.52	-17 15.5	1.826	2.829	2.4	19.0	5 1	15 0.07	-9 45.6	1.699	2.700	3.1	19.6
5 11	14 51.19	-16 29.9	1.801	2.808	1.9	18.9	5 11	14 51.66	-8 25.9	1.697	2.696	4.0	19.7
5 21	14 42.12	-15 43.6	1.804	2.787	6.1	19.2	5 21	14 43.71	-7 15.4	1.721	2.691	7.7	19.9
5 31	14 34.29	-15 1.4	1.834	2.766	10.2	19.4	5 31	14 37.12	-6 19.6	1.771	2.686	11.5	20.1
6 10	14 28.41	-14 27.9	1.887	2.744	13.7	19.6	6 10	14 32.50	-5 41.6	1.843	2.681	14.8	20.3
87334	2000 QK ₂₀		5 6.6 209°75	0°9/ 5.9 18			154724	2004 NU		5 6.7 270°96	2°2/ 5.1 18		
4 1	15 20.84	-15 53.2	2.280	3.108	12.1	20.8	4 1	15 19.62	-13 20.5	1.805	2.651	14.0	20.3
4 11	15 15.68	-15 24.2	2.190	3.102	9.1	20.6	4 11	15 15.26	-12 41.2	1.716	2.638	10.6	20.0
4 21	15 8.62	-14 48.2	2.123	3.095	5.7	20.3	4 21	15 8.63	-11 55.0	1.650	2.624	6.7	19.8
5 1	15 0.27	-14 7.5	2.084	3.087	2.1	20.1	5 1	15 0.35	-11 5.4	1.609	2.611	2.9	19.5
5 11	14 51.42	-13 25.6	2.074	3.080	2.2	20.1	5 11	14 51.41	-10 17.4	1.595	2.598	3.5	19.5
5 21	14 42.92	-12 46.3	2.093	3.071	5.9	20.3	5 21	14 42.83	-9 36.2	1.608	2.584	7.6	19.7
5 31	14 35.56	-12 13.5	2.138	3.062	9.4	20.5	5 31	14 35.61	-9 6.4	1.646	2.570	11.7	19.9
6 10	14 29.94	-11 50.2	2.208	3.052	12.5	20.7	6 10	14 30.49	-8 51.0	1.706	2.557	15.3	20.1
213060	1999 RU ₅₀		5 6.7 252°20	0°8/ 6.2 18			127703	2003 EE ₂₅		5 6.7 70°09	0°8/ 6.3 18		
4 1	15 23.49	-16 7.0	1.828	2.662	14.3	20.8	4 1	15 24.75	-15 43.4	1.296	2.149	17.9	20.4
4 11	15 18.33	-15 49.6	1.728	2.643	11.0	20.6	4 11	15 19.71	-15 39.8	1.235	2.159	13.6	20.1
4 21	15 10.66	-15 24.1	1.652	2.624	7.0	20.3	4 21	15 11.62	-15 28.1	1.194	2.170	8.6	19.9
5 1	15 1.12	-14 52.4	1.601	2.605	2.6	20.0	5 1	15 1.45	-15 10.5	1.177	2.181	3.1	19.6
5 11	14 50.72	-14 18.0	1.578	2.584	2.4	19.9	5 11	14 50.63	-14 51.1	1.185	2.192	2.8	19.6
5 21	14 40.61	-13 45.2	1.582	2.563	7.1	20.2	5 21	14 40.63	-14 34.4	1.217	2.202	8.1	19.9
5 31	14 31.88	-13 18.8	1.612	2.542	11.5	20.4	5 31	14 32.73	-14 25.4	1.273	2.213	13.0	20.2
6 10	14 25.39	-13 2.8	1.664	2.520	15.3	20.6	6 10	14 27.73	-14 27.2	1.349	2.224	17.1	20.5
73354	2002 JW ₁₄₂		5 6.7 193°34	1°8/ 8.1 18			485439	2011 QQ ₆₄		5 6.7 269°64	5°3/ 26.9 17		
4 1	15 19.41	-24 21.0	1.971	2.790	14.1	19.8	4 1	15 9.85	+11 7.3	4.560	5.365	6.9	21.5
4 11	15 14.93	-23 57.9	1.888	2.789	10.9	19.6	4 11	15 6.60	+12 5.9	4.496	5.359	6.0	21.4
4 21	15 8.28	-23 20.6	1.826	2.789	7.3	19.4	4 21	15 2.55	+12 58.3	4.457	5.353	5.4	21.3
5 1	15 0.16	-22 30.3	1.790	2.789	3.5	19.1	5 1	14 57.99	+13 41.8	4.446	5.346	5.3	21.3
5 11	14 51.54	-21 30.3	1.782	2.788	2.2	19.0	5 11	14 53.26	+14 14.3	4.460	5.340	5.8	21.3
5 21	14 43.39	-20 25.8	1.801	2.788	5.8	19.3	5 21	14 48.68	+14 34.5	4.500	5.334	6.7	21.4
5 31	14 36.64	-19 22.9	1.846	2.787	9.6	19.5	5 31	14 44.58	+14 41.7	4.564	5.328	7.8	21.5
6 10	14 31.92	-18 27.2	1.915	2.787	12.9	19.7	6 10	14 41.22	+14 36.5	4.647	5.321	8.8	21.6
80444	1999 YG ₀		5 6.7 340°77	3°3/ 8.4 18			169552	2002 EP ₁₀₉		5 6.7 291°71	4°0/ 4.3 18		
4 1	15 18.11	-24 25.1	1.293	2.139	18.4	18.2	4 1	15 19.87	-10 39.1	1.421	2.282	16.2	20.0
4 11	15 15.14	-24 37.9	1.214	2.130	14.5	17.9	4 11	15 16.04	-9 48.1	1.337	2.266	12.4	19.7
4 21	15 9.03	-24 33.8	1.154	2.121	10.0	17.6	4 21	15 9.42	-8 50.4	1.273	2.250	8.1	19.5
5 1	15 0.59	-24 11.7	1.115	2.113	5.3	17.3	5 1	15 0.72	-7 51.8	1.234	2.233	4.4	19.2
5 11	14 51.16	-23 34.1	1.101	2.106	3.6	17.2	5 11	14 51.12	-6 59.3	1.219	2.217	5.5	19.2
5 21	14 42.26	-22 46.4	1.109	2.100	7.8	17.4	5 21	14 41.93	-6 19.6	1.229	2.201	9.9	19.4
5 31	14 35.33	-21 56.6	1.141	2.095	12.7	17.6	5 31	14 34.41	-5 58.2	1.262	2.185	14.5	19.6
6 10	14 31.35	-21 12.9	1.192	2.091	17.2	17.9	6 10	14 29.46	-5 57.3	1.313	2.169	18.6	19.8
274536	2008 SD ₂₃₆		5 6.7 275°71	0°0/ 6.4 17			366541	2002 QJ ₉₂		5 6.7 256°45	1°7/ 5.6 17		
4 1	15 21.15	-19 12.8	2.096	2.921	13.1	20.5	4 1	15 22.52	-14 2.9	1.795	2.635	14.3	22.0
4 11	15 16.37	-18 44.7	1.980	2.890	10.1	20.2	4 11	15 17.58	-13 39.2	1.700	2.618	10.9	21.7
4 21	15 9.35	-18 5.5	1.888	2.858	6.5	20.0	4 21	15 10.18	-13 8.8	1.627	2.601	6.9	21.4
5 1	15 0.64	-17 16.8	1.823	2.826	2.4	19.6	5 1	15 0.96	-12 34.3	1.580	2.583	2.8	21.1
5 11	14 51.10	-16 21.8	1.785	2.792	1.9	19.5	5 11	14 50.94	-11 59.8	1.560	2.565	3.1	21.1
5 21	14 41.71	-15 25.1	1.776	2.759	6.3	19.7	5 21	14 41.22	-11 29.8	1.568	2.546	7.5	21.3
5 31	14 33.48	-14 32.3	1.794	2.724	10.4	19.9	5 31	14 32.89	-11 8.8	1.600	2.527	11.8	21.5
6 10	14 27.18	-13 48.6	1.834	2.690	14.1	20.1	6 10	14 26.77	-11 0.0	1.654	2.507	15.6	21.7
497704	2006 SW ₉₄		5 6.7 223°52	1°0/ 7.3 17			499679	2010 VV ₂₀₈		5 6.7 221°42	0°4/ 6.9 17		
4 1	15 23.99	-20 31.1	2.081	2.898	13.5	22.8	4 1	15 23.72	-19 1.0	1.948	2.773	13.9	22.5
4 11	15 18.40	-20 26.9	1.984	2.887	10.4	22.6	4 11	15 18.29	-18 52.5	1.856	2.764	10.7	22.2
4 21	15 10.53	-20 12.8	1.910	2.876	6.8	22.3	4 21	15 10.52	-18 34.7	1.786	2.755	6.9	22.0
5 1	15 1.04	-19 49.6	1.862	2.863	2.8	22.0	5 1	15 1.06	-18 8.6	1.743	2.745	2.7	21.7
5 11	14 50.84	-19 19.3	1.843	2.851	1.9	21.9	5 11	14 50.89	-17 37.0	1.727	2.735	1.9	21.6
5 21	14 40.96	-18 45.6	1.853	2.837	5.9	22.2	5 21	14 41.10	-17 3.7	1.740	2.724	6.2	21.9
5 31	14 32.40	-18 12.9	1.889	2.823	9.8	22.4	5 31	14 32.69	-16 33.3	1.779	2.712	10.3	22.1
6 10	14 25.88	-17 45.8	1.949	2.808	13.3	22.6	6 10	14 26.42	-16 10.3	1.840	2.700	13.9	22.3
292309	2006 SS ₁₅₄		5 6.7 236°26	0°3/ 6.5 18			466657	2014 WM ₈₀		5 6.7 209°34	1°3/ 5.8 17		
4 1	15 23.48	-17 4.8	1.957	2.786	13.7	21.8	4 1	15 23.32	-15 15.2	1.915	2.748	13.8	22.6
4 11	15 18.12	-16 52.3	1.861	2.772	10.5	21.5	4 11	15 17.92	-14 47.4	1.827	2.742	10.5	22.4
4 21	15 10.42	-16 31.8	1.787	2.758	6.7	21.3	4 21	15 10.23	-14 12.1	1.763	2.736	6.6	22.1
5 1	15 1.01	-16 4.8	1.740	2.744	2.5	21.0	5 1	15 0.93	-13 32.0	1.725	2.728	2.5	21.8
5 11	14 50.86	-15 34.3	1.721	2.728	2.1	20.9	5 11	14 51.01	-12 51.0	1.716	2.721	2.7	21.8
5 21	14 41.03	-15 4.1	1.730	2.713	6.5	21.2	5 21	14 41.50	-12 13.6	1.734	2.712	6.9	22.1
5 31	14 32.53	-14 38.6	1.766	2.696	10.6	21.4	5 31	14 33.39	-11 44.3	1.778	2.703	10.9	22.3
6 10	14 26.14	-14 21.7	1.824	2.679	14.2	21.6	6 10	14 27.38	-11 26.4	1.845	2.693	14.4	22.5
184284	2005 BK ₁₂		5 6.7 351°22	0°6/ 7.4 18			20689	Zhuyuanchen		5 6.7 141°22	0°2/ 6.8 18		
4 1	15 11.86	-20 27.5	4.003	4.814	7.6	20.5							

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
239306	2007 <i>QH</i> ₂		5 6.7 200°73	0°8/ 7.3 18			35965	1999 <i>LH</i> ₁₃		5 6.7 311°02	6°0/ 3.2 18		
4 1	15 20.53	-20 17.4	2.241	3.061	12.5	21.7	4 1	15 18.72	-7 2.3	1.313	2.182	16.8	17.4
4 11	15 15.53	-20 10.6	2.154	3.059	9.6	21.5	4 11	15 15.29	-5 59.6	1.236	2.168	13.0	17.1
4 21	15 8.59	-19 55.0	2.090	3.057	6.2	21.3	4 21	15 8.99	-4 53.8	1.180	2.154	8.9	16.8
5 1	15 0.30	-19 31.4	2.053	3.054	2.6	21.1	5 1	15 0.58	-3 52.3	1.146	2.140	6.1	16.6
5 11	14 51.51	-19 2.3	2.044	3.051	1.7	21.0	5 11	14 51.30	-3 3.6	1.137	2.127	7.4	16.7
5 21	14 43.09	-18 30.9	2.063	3.048	5.3	21.2	5 21	14 42.49	-2 34.3	1.150	2.114	11.4	16.8
5 31	14 35.86	-18 1.2	2.110	3.045	8.9	21.4	5 31	14 35.43	-2 28.8	1.185	2.101	15.8	17.0
6 10	14 30.43	-17 36.9	2.180	3.041	12.0	21.6	6 10	14 31.03	-2 47.5	1.238	2.089	19.8	17.3
219727	2001 <i>XK</i> ₁₂₈		5 6.7 196°91	1°4/ 5.6 17			89901	2002 <i>CD</i> ₂₉₉		5 6.7 314°75	8°3/ 29.5 16		
4 1	15 21.76	-14 10.0	2.289	3.118	12.0	21.9	4 1	15 15.74	+ 4 4.5	2.000	2.844	12.9	19.5
4 11	15 16.34	-13 43.8	2.202	3.115	9.1	21.7	4 11	15 12.08	+ 5 21.7	1.920	2.824	10.7	19.3
4 21	15 9.04	-13 12.1	2.139	3.111	5.7	21.5	4 21	15 6.50	+ 6 32.9	1.864	2.805	8.9	19.2
5 1	15 0.46	-12 37.4	2.104	3.107	2.3	21.2	5 1	14 59.57	+ 7 30.9	1.833	2.786	8.3	19.1
5 11	14 51.40	-12 3.0	2.098	3.102	2.5	21.2	5 11	14 52.09	+ 8 9.6	1.826	2.767	9.4	19.1
5 21	14 42.70	-11 32.5	2.120	3.096	6.0	21.5	5 21	14 44.93	+ 8 25.3	1.844	2.749	11.6	19.2
5 31	14 35.15	-11 9.1	2.170	3.090	9.4	21.7	5 31	14 38.89	+ 8 16.3	1.883	2.731	14.1	19.4
6 10	14 29.35	-10 55.3	2.243	3.083	12.5	21.8	6 10	14 34.60	+ 7 44.0	1.942	2.713	16.5	19.5
44870	1999 <i>UP</i> ₃₅		5 6.7 307°32	0°1/ 6.8 18			489327	2006 <i>TZ</i> ₆₀		5 6.7 217°15	0°1/ 6.8 18		
4 1	15 18.48	-20 31.6	1.424	2.273	16.8	19.0	4 1	15 18.12	-19 27.2	3.089	3.901	9.6	23.1
4 11	15 15.06	-19 53.5	1.339	2.260	13.0	18.8	4 11	15 13.21	-18 57.0	2.988	3.890	7.3	23.0
4 21	15 8.81	-18 58.9	1.274	2.248	8.4	18.5	4 21	15 6.91	-18 19.4	2.913	3.879	4.7	22.8
5 1	15 0.50	-17 50.3	1.233	2.236	3.2	18.1	5 1	14 59.66	-17 35.9	2.865	3.868	1.8	22.5
5 11	14 51.34	-16 33.7	1.217	2.225	2.3	18.0	5 11	14 52.05	-16 48.9	2.848	3.856	1.3	22.5
5 21	14 42.68	-15 17.0	1.226	2.213	7.8	18.3	5 21	14 44.68	-16 1.5	2.861	3.843	4.3	22.7
5 31	14 35.77	-14 8.6	1.259	2.203	12.8	18.6	5 31	14 38.14	-15 16.9	2.903	3.829	7.1	22.9
6 10	14 31.49	-13 15.4	1.312	2.192	17.2	18.8	6 10	14 32.89	-14 38.2	2.971	3.815	9.6	23.0
374976	2007 <i>DN</i> ₉₇		5 6.7 43°40	2°1/ 7.9 17			430802	2004 <i>XK</i> ₄		5 6.7 61°81	4°8/ 5.7 15 C		
4 1	15 21.63	-22 26.7	1.487	2.324	16.9	20.8	4 1	15 44.06	-7 24.2	0.723	1.593	26.5	22.5
4 11	15 17.12	-22 35.6	1.425	2.337	13.1	20.6	4 11	15 34.36	-7 32.9	0.709	1.641	19.8	22.3
4 21	15 9.88	-22 31.0	1.382	2.350	8.7	20.4	4 21	15 20.44	-7 44.3	0.712	1.688	12.5	22.1
5 1	15 0.81	-22 13.3	1.364	2.363	4.1	20.1	5 1	15 4.38	-8 2.0	0.735	1.735	6.0	22.0
5 11	14 51.17	-21 45.3	1.371	2.377	2.7	20.0	5 11	14 48.83	-8 28.9	0.780	1.782	6.2	22.2
5 21	14 42.27	-21 11.9	1.403	2.392	6.8	20.3	5 21	14 35.92	-9 6.1	0.847	1.827	11.7	22.7
5 31	14 35.22	-20 38.9	1.460	2.406	11.1	20.6	5 31	14 26.92	-9 53.6	0.935	1.871	16.9	23.1
6 10	14 30.76	-20 11.9	1.538	2.421	14.9	20.9	6 10	14 22.18	-10 50.4	1.039	1.915	21.0	23.5
370179	2002 <i>CZ</i> ₂₈		5 6.7 97°08	6°9/ 11.3 18			244998	2004 <i>CV</i> ₇		5 6.7 63°64	6°3/ 1.8 17		
4 1	15 26.18	-35 23.5	1.919	2.685	16.3	20.8	4 1	15 18.01	-1 25.1	1.931	2.780	13.1	20.7
4 11	15 20.44	-36 9.4	1.846	2.698	13.6	20.7	4 11	15 13.54	-0 16.2	1.880	2.795	10.2	20.6
4 21	15 11.96	-36 36.3	1.794	2.710	10.7	20.5	4 21	15 7.23	+ 0 48.3	1.852	2.810	7.6	20.4
5 1	15 1.59	-36 40.5	1.765	2.723	8.1	20.4	5 1	14 59.76	+ 1 42.6	1.850	2.825	6.3	20.4
5 11	14 50.55	-36 21.7	1.761	2.735	6.9	20.3	5 11	14 52.02	+ 2 21.4	1.874	2.840	7.3	20.5
5 21	14 40.14	-35 42.7	1.783	2.748	8.0	20.4	5 21	14 44.83	+ 2 41.5	1.923	2.856	9.6	20.6
5 31	14 31.52	-34 50.1	1.831	2.760	10.4	20.6	5 31	14 38.94	+ 2 41.9	1.996	2.871	12.3	20.8
6 10	14 25.48	-33 51.6	1.902	2.771	13.1	20.8	6 10	14 34.85	+ 2 23.6	2.090	2.887	14.7	21.0
325043	2008 <i>CL</i> ₁₂₆		5 6.7 151°15	0°5/ 6.3 16			432517	2010 <i>FH</i> ₉₀		5 6.7 5°19	4°2/ 3.3 17		
4 1	15 23.25	-17 18.2	1.973	2.801	13.7	22.6	4 1	15 16.34	-9 35.3	1.813	2.668	13.5	21.1
4 11	15 17.65	-16 49.9	1.898	2.810	10.3	22.4	4 11	15 12.58	-8 18.2	1.742	2.668	10.2	20.9
4 21	15 9.92	-16 13.1	1.847	2.818	6.5	22.2	4 21	15 6.79	-6 56.4	1.695	2.668	6.8	20.7
5 1	15 0.78	-15 30.1	1.823	2.826	2.3	21.9	5 1	14 59.66	-5 36.1	1.674	2.669	4.3	20.5
5 11	14 51.20	-14 44.9	1.826	2.833	2.1	21.9	5 11	14 52.08	-4 24.1	1.679	2.670	5.4	20.6
5 21	14 42.16	-14 2.0	1.858	2.839	6.2	22.2	5 21	14 45.00	-3 26.1	1.711	2.671	8.6	20.8
5 31	14 34.56	-13 25.9	1.917	2.845	10.0	22.4	5 31	14 39.23	-2 46.3	1.767	2.672	12.1	21.0
6 10	14 28.99	-13 0.0	1.998	2.850	13.3	22.7	6 10	14 35.38	-2 26.1	1.844	2.674	15.1	21.2
164491	2006 <i>FB</i> ₄₆		5 6.7 355°03	4°9/ 9.3 17			35760	1999 <i>HP</i> ₁		5 6.7 115°44	5°8/ 9.3 18		
4 1	15 19.32	-27 32.6	1.498	2.324	17.3	19.3	4 1	15 36.98	-29 7.6	1.810	2.586	16.7	19.2
4 11	15 15.75	-28 8.3	1.420	2.320	14.0	19.1	4 11	15 28.65	-30 25.7	1.742	2.609	13.5	19.1
4 21	15 9.28	-28 27.8	1.361	2.316	10.1	18.8	4 21	15 17.21	-31 29.5	1.696	2.631	10.0	18.9
5 1	15 0.68	-28 28.7	1.325	2.314	6.4	18.6	5 1	15 3.56	-32 13.8	1.676	2.651	6.9	18.8
5 11	14 51.21	-28 11.5	1.313	2.312	4.9	18.5	5 11	14 49.10	-32 36.2	1.685	2.671	5.8	18.7
5 21	14 42.25	-27 39.7	1.326	2.311	7.6	18.7	5 21	14 35.36	-32 38.5	1.722	2.691	7.8	18.9
5 31	14 35.11	-26 59.9	1.362	2.312	11.5	18.9	5 31	14 23.70	-32 26.0	1.785	2.709	10.9	19.1
6 10	14 30.68	-26 19.8	1.420	2.313	15.3	19.1	6 10	14 14.98	-32 6.4	1.872	2.726	13.9	19.3
497188	2004 <i>TA</i> ₉₃		5 6.7 186°42	3°5/ 8.9 18			344358	2001 <i>XD</i> ₂₀		5 6.7 101°10	4°0/ 10.3 18		
4 1	15 25.42	-27 13.6	2.404	3.190	12.8	21.8	4 1	15 20.82	-31 23.7	2.517	3.292	12.6	21.0
4 11	15 19.28	-27 44.2	2.312	3.190	10.2	21.6	4 11	15 15.58	-31 30.1	2.442	3.308	10.2	20.9
4 21	15 11.01	-28 3.7	2.244	3.189	7.3	21.4	4 21	15 8.51	-31 22.2	2.389	3.323	7.5	20.7
5 1	15 1.22	-28 10.6	2.202	3.187	4.6	21.2	5 1	15 0.26	-30 59.5	2.362	3.339	5.1	20.6
5 11	14 50.81	-28 5.0	2.189	3.186	3.6	21.2	5 11	14 51.64	-30 23.3	2.363	3.354	4.0	20.6
5 21	14 40.73	-27 48.9	2.205	3.183	5.6	21.3	5 21	14 43.51	-29 36.9	2.392	3.369	5.4	20.7
5 31	14 31.89	-27 26.0	2.248	3.180	8.6	21.5	5 31	14 36.62	-28 44.8	2.448	3.383	7.8	20.8
6 10	14 24.99	-27 1.0	2.316	3.177	11.4	21.6	6 10	14 31.49	-27 52.3	2.529	3.398	10.3	21.0
109402	2001 <i>QM</i> ₁₈₀		5 6.7 244°71	1°3/ 5.8 18 R			325015	2008 <i>CF</i> ₁₁		5 6.7 89°96	1°3/ 5.9 18		

EPHEMERIDES

5 6.7

5 6.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
432350	2009 VX ₆₈		5 6.7 283°17	0°1/ 6.8 18			86247	1999 TP ₁₄₅		5 6.7 322°30	1°0/ 7.3 18		
4 1	15 22.16	-17 48.4	1.768	2.604	14.7	20.7	4 1	15 18.67	-19 53.2	2.058	2.887	13.1	18.7
4 11	15 17.52	-17 47.9	1.666	2.581	11.3	20.5	4 11	15 14.40	-19 58.3	1.967	2.877	10.1	18.5
4 21	15 10.29	-17 39.2	1.586	2.558	7.3	20.2	4 21	15 8.05	-19 54.9	1.899	2.867	6.6	18.3
5 1	15 1.09	-17 23.0	1.532	2.535	2.8	19.8	5 1	15 0.20	-19 43.9	1.856	2.858	2.8	18.0
5 11	14 50.92	-17 1.9	1.504	2.511	2.1	19.7	5 11	14 51.73	-19 27.0	1.841	2.849	1.8	17.9
5 21	14 40.96	-16 39.3	1.502	2.487	6.9	20.0	5 21	14 43.58	-19 7.3	1.854	2.840	5.7	18.2
5 31	14 32.38	-16 20.0	1.526	2.464	11.4	20.2	5 31	14 36.65	-18 48.6	1.892	2.832	9.4	18.4
6 10	14 26.10	-16 8.5	1.572	2.440	15.5	20.4	6 10	14 31.63	-18 34.5	1.953	2.824	12.8	18.6
116724	2004 DE ₁₃		5 6.7 281°05	5°3/ 9.2 18			105929	2000 SU ₂₁₉		5 6.7 176°96	2°5/ 4.9 16		
4 1	15 24.74	-28 28.8	1.700	2.505	16.5	19.0	4 1	15 24.17	-11 20.5	2.067	2.900	13.0	20.6
4 11	15 19.88	-29 14.8	1.601	2.487	13.5	18.8	4 11	15 18.28	-10 45.1	1.989	2.903	9.8	20.4
4 21	15 12.01	-29 47.0	1.523	2.470	10.0	18.5	4 21	15 10.33	-10 5.6	1.934	2.905	6.3	20.2
5 1	15 1.78	-30 1.6	1.468	2.452	6.6	18.3	5 1	15 0.99	-9 25.5	1.906	2.906	3.0	20.0
5 11	14 50.37	-29 57.3	1.439	2.434	5.4	18.2	5 11	14 51.18	-8 49.0	1.908	2.907	3.6	20.1
5 21	14 39.18	-29 35.8	1.436	2.416	7.8	18.3	5 21	14 41.83	-8 19.8	1.937	2.907	7.1	20.3
5 31	14 29.63	-29 2.7	1.458	2.398	11.6	18.4	5 31	14 33.81	-8 1.3	1.994	2.905	10.6	20.5
6 10	14 22.80	-28 25.5	1.501	2.380	15.4	18.6	6 10	14 27.74	-7 55.3	2.072	2.903	13.7	20.7
245279	2005 BZ ₃₂		5 6.7 311°93	5°3/28.8 18			506763	2006 WH ₁₀₂		5 6.7 167°41	0°4/ 6.3 17		
4 1	15 11.30	+ 8 49.8	4.026	4.838	7.6	19.9	4 1	15 18.53	-16 29.8	2.551	3.376	11.0	22.3
4 11	15 7.78	+ 9 32.3	3.954	4.829	6.4	19.8	4 11	15 13.74	-16 13.2	2.468	3.378	8.3	22.1
4 21	15 3.36	+10 8.5	3.907	4.820	5.6	19.7	4 21	15 7.35	-15 50.9	2.409	3.380	5.2	21.9
5 1	14 58.34	+10 35.6	3.887	4.811	5.3	19.7	5 1	14 59.87	-15 24.4	2.379	3.382	1.9	21.7
5 11	14 53.12	+10 51.6	3.894	4.802	5.9	19.7	5 11	14 52.03	-14 56.5	2.377	3.383	1.7	21.6
5 21	14 48.07	+10 55.0	3.927	4.793	6.9	19.8	5 21	14 44.52	-14 30.0	2.404	3.385	5.0	21.9
5 31	14 43.57	+10 45.5	3.983	4.784	8.2	19.9	5 31	14 38.02	-14 7.9	2.458	3.386	8.1	22.1
6 10	14 39.93	+10 23.6	4.062	4.775	9.4	20.0	6 10	14 33.04	-13 52.6	2.537	3.386	10.9	22.3
180992	2005 NF ₂₀		5 6.7 270°30	5°1/ 3.3 18			510393	2011 UT ₁₁₄		5 6.7 241°43	2°2/ 4.9 18		
4 1	15 21.69	- 5 40.3	1.828	2.674	13.8	20.0	4 1	15 18.91	-10 14.0	2.591	3.424	10.6	22.0
4 11	15 16.90	- 4 50.2	1.732	2.650	10.7	19.8	4 11	15 14.05	- 9 55.6	2.500	3.414	8.1	21.8
4 21	15 9.76	- 3 58.9	1.659	2.626	7.5	19.5	4 21	15 7.57	- 9 35.4	2.433	3.403	5.2	21.6
5 1	15 0.86	- 3 11.6	1.611	2.601	5.2	19.3	5 1	14 59.97	- 9 15.5	2.393	3.393	2.6	21.4
5 11	14 51.14	- 2 34.3	1.590	2.576	6.3	19.3	5 11	14 51.94	- 8 58.9	2.383	3.382	3.0	21.4
5 21	14 41.68	- 2 11.7	1.596	2.550	9.6	19.5	5 21	14 44.16	- 8 47.9	2.401	3.371	5.9	21.6
5 31	14 33.50	- 2 7.2	1.626	2.524	13.3	19.6	5 31	14 37.31	- 8 44.6	2.447	3.359	8.8	21.8
6 10	14 27.41	- 2 21.7	1.676	2.497	16.8	19.8	6 10	14 31.94	- 8 50.6	2.516	3.348	11.5	21.9
53419	1999 PJ ₄		5 6.7 277°10	6°7/16.8 18			505490	2013 WD ₃₇		5 6.7 232°63	0°8/ 7.2 17		
4 1	15 21.08	-53 1.4	4.579	5.174	9.5	19.7	4 1	15 22.25	-19 52.4	2.113	2.934	13.1	22.2
4 11	15 15.67	-53 46.6	4.479	5.167	8.7	19.6	4 11	15 17.06	-19 51.8	2.019	2.924	10.1	22.0
4 21	15 8.61	-54 18.5	4.399	5.160	7.9	19.5	4 21	15 9.71	-19 42.5	1.948	2.915	6.6	21.8
5 1	15 0.36	-54 34.9	4.339	5.153	7.2	19.5	5 1	15 0.82	-19 25.1	1.903	2.905	2.7	21.5
5 11	14 51.57	-54 34.8	4.303	5.147	6.8	19.4	5 11	14 51.28	-19 1.6	1.887	2.894	1.8	21.4
5 21	14 42.97	-54 18.8	4.292	5.140	6.7	19.4	5 21	14 42.07	-18 35.4	1.899	2.883	5.7	21.6
5 31	14 35.24	-53 48.6	4.304	5.133	7.1	19.4	5 31	14 34.10	-18 10.4	1.937	2.872	9.5	21.9
6 10	14 28.96	-53 7.4	4.339	5.127	7.8	19.5	6 10	14 28.09	-17 50.6	1.999	2.861	12.9	22.0
275936	2001 UP ₅₅		5 6.7 219°95	1°8/ 7.9 17			11813	Ingorichter		5 6.7 323°93	2°6/ 4.6 18		
4 1	15 22.55	-23 17.6	2.104	2.915	13.5	21.9	4 1	15 16.28	-11 41.6	2.041	2.889	12.5	18.3
4 11	15 17.31	-23 11.0	2.009	2.907	10.5	21.7	4 11	15 12.44	-10 56.6	1.959	2.881	9.4	18.1
4 21	15 9.87	-22 52.6	1.937	2.899	7.1	21.5	4 21	15 6.71	-10 6.7	1.900	2.874	6.0	17.9
5 1	15 0.86	-22 22.6	1.892	2.890	3.4	21.2	5 1	14 59.68	- 9 15.9	1.867	2.867	3.0	17.7
5 11	14 51.21	-21 43.3	1.874	2.880	2.2	21.1	5 11	14 52.18	- 8 28.7	1.861	2.860	3.7	17.7
5 21	14 41.93	-20 58.5	1.885	2.870	5.7	21.3	5 21	14 45.03	- 7 49.7	1.883	2.854	7.1	17.9
5 31	14 33.95	-20 13.2	1.922	2.860	9.5	21.5	5 31	14 39.05	- 7 22.4	1.930	2.848	10.5	18.1
6 10	14 27.99	-19 32.6	1.984	2.848	12.8	21.7	6 10	14 34.83	- 7 9.0	1.999	2.842	13.6	18.3
49174	1998 SA ₆₄		5 6.7 309°52	4°4/ 3.6 18			290733	2005 UJ ₄₄₇		5 6.7 282°76	2°2/ 8.7 17		
4 1	15 18.90	- 9 55.8	1.583	2.440	15.0	18.6	4 1	15 17.53	-26 42.8	2.355	3.158	12.5	20.3
4 11	15 14.84	- 8 43.9	1.512	2.438	11.4	18.3	4 11	15 13.36	-26 14.8	2.251	3.142	9.9	20.1
4 21	15 8.39	- 7 26.5	1.462	2.437	7.5	18.1	4 21	15 7.29	-25 32.2	2.170	3.126	6.8	19.9
5 1	15 0.31	- 6 10.0	1.438	2.435	4.6	17.9	5 1	14 59.91	-24 35.8	2.115	3.110	3.7	19.6
5 11	14 51.67	- 5 2.0	1.440	2.433	5.7	18.0	5 11	14 52.00	-23 28.2	2.089	3.093	2.4	19.5
5 21	14 43.58	- 4 8.9	1.468	2.431	9.4	18.2	5 21	14 44.41	-22 13.9	2.091	3.077	5.2	19.7
5 31	14 37.04	- 3 35.1	1.518	2.430	13.3	18.4	5 31	14 37.93	-20 58.7	2.120	3.061	8.5	19.8
6 10	14 32.73	- 3 22.4	1.589	2.428	16.7	18.6	6 10	14 33.19	-19 48.1	2.174	3.044	11.7	20.0
273855	2007 GK ₄₈		5 6.7 310°15	1°3/ 6.2 16			382077	2011 FR ₂₇		5 6.7 123°34	0°9/ 7.1 17		
4 1	15 23.74	-12 22.4	1.583	2.429	15.6	19.5	4 1	15 28.78	-16 54.6	1.914	2.734	14.3	20.4
4 11	15 19.12	-12 43.6	1.478	2.399	12.0	19.2	4 11	15 22.14	-17 40.5	1.833	2.738	11.0	20.2
4 21	15 11.58	-13 3.9	1.394	2.369	7.8	18.8	4 21	15 12.99	-18 22.3	1.776	2.743	7.1	20.0
5 1	15 1.68	-13 24.5	1.335	2.338	3.0	18.5	5 1	15 2.04	-18 58.8	1.746	2.747	2.9	19.7
5 11	14 50.49	-13 47.1	1.302	2.309	2.9	18.4	5 11	14 50.38	-19 29.8	1.744	2.752	2.0	19.6
5 21	14 39.35	-14 13.4	1.296	2.279	8.0	18.6	5 21	14 39.15	-19 56.3	1.772	2.756	6.2	19.9
5 31	14 29.64	-14 45.8	1.314	2.250	13.0	18.8	5 31	14 29.45	-20 20.2	1.827	2.760	10.1	20.2
6 10	14 22.47	-15 26.2	1.353	2.222	17.4	19.0	6 10	14 22.05	-20 44.7	1.905	2.764	13.6	20.4
435867	2008 YH ₄₆		5 6.7 156°51	0°0/ 6.5 17			347732	2001 YA ₂₈		5 6.7 57°71	2°3/ 5.4 17		
4 1	15 20.24	-18 9.5	2.315	3.139	12.0	22							

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
295468	2008 QZ ₄		5 6.7 216°07	5°1/10.6 18			161234	2003 AB ₉		5 6.7 141°84	15°1/24.4 18		
4 1	15 24.92	-33 40.0	2.597	3.352	12.7	21.4	4 1	15 22.93	+9 57.1	1.250	2.098	18.8	19.7
4 11	15 18.98	-34 7.5	2.494	3.343	10.6	21.2	4 11	15 18.23	+13 8.4	1.214	2.105	16.5	19.5
4 21	15 10.90	-34 20.9	2.413	3.333	8.2	21.0	4 21	15 10.65	+16 2.0	1.200	2.112	15.2	19.5
5 1	15 1.27	-34 17.9	2.358	3.322	6.0	20.8	5 1	15 1.18	+18 21.5	1.208	2.119	15.5	19.5
5 11	14 50.96	-33 58.1	2.331	3.310	5.1	20.8	5 11	14 51.20	+19 55.4	1.237	2.125	17.1	19.6
5 21	14 40.93	-33 23.6	2.331	3.298	6.2	20.8	5 21	14 42.11	+20 39.7	1.285	2.130	19.4	19.8
5 31	14 32.10	-32 38.4	2.360	3.286	8.5	20.9	5 31	14 35.04	+20 36.9	1.349	2.135	21.7	20.0
6 10	14 25.17	-31 48.3	2.413	3.272	11.0	21.1	6 10	14 30.71	+19 54.6	1.425	2.139	23.9	20.1
456917	2007 XP ₂₈		5 6.7 73°06	3°2/ 5.2 16			130627	2000 SB ₅₃		5 6.7 219°20	0°9/ 7.2 18		
4 1	15 24.53	-9 58.6	1.455	2.307	16.4	21.4	4 1	15 25.96	-19 21.4	1.771	2.597	15.1	19.7
4 11	15 19.14	-9 42.5	1.397	2.321	12.4	21.2	4 11	15 20.30	-19 29.8	1.682	2.590	11.7	19.5
4 21	15 11.10	-9 24.6	1.361	2.336	7.9	21.0	4 21	15 12.00	-19 29.2	1.614	2.582	7.6	19.2
5 1	15 1.31	-9 8.7	1.349	2.350	3.8	20.8	5 1	15 1.75	-19 19.7	1.572	2.574	3.1	18.9
5 11	14 51.02	-8 58.9	1.363	2.364	4.4	20.8	5 11	14 50.67	-19 3.2	1.558	2.565	2.1	18.8
5 21	14 41.52	-8 58.5	1.403	2.378	8.5	21.1	5 21	14 39.99	-18 43.1	1.570	2.556	6.6	19.1
5 31	14 33.87	-9 10.0	1.467	2.393	12.7	21.4	5 31	14 30.86	-18 24.0	1.609	2.546	11.0	19.3
6 10	14 28.77	-9 34.2	1.551	2.407	16.3	21.6	6 10	14 24.14	-18 10.6	1.671	2.535	14.8	19.6
469206	2016 GO ₂₁₈		5 6.7 39°18	13°8/29.9 16			16191	Rubyroo		5 6.7 260°32	0°2/ 6.5 18		
4 1	15 21.76	+13 6.6	1.325	2.163	18.5	20.1	4 1	15 22.45	-17 55.1	1.821	2.654	14.4	19.6
4 11	15 17.02	+14 27.7	1.295	2.179	16.1	20.0	4 11	15 17.62	-17 35.2	1.721	2.635	11.1	19.4
4 21	15 9.67	+15 25.7	1.283	2.196	14.4	20.0	4 21	15 10.31	-17 5.3	1.643	2.615	7.1	19.1
5 1	15 0.73	+15 51.4	1.292	2.213	13.8	20.0	5 1	15 1.14	-16 27.1	1.591	2.595	2.6	18.8
5 11	14 51.51	+15 39.9	1.321	2.231	14.6	20.1	5 11	14 51.12	-15 44.1	1.567	2.574	2.1	18.7
5 21	14 43.24	+14 51.5	1.371	2.250	16.4	20.2	5 21	14 41.38	-15 1.0	1.569	2.553	6.9	18.9
5 31	14 36.91	+13 31.0	1.439	2.269	18.5	20.4	5 31	14 33.02	-14 23.3	1.597	2.531	11.3	19.1
6 10	14 33.10	+11 45.5	1.524	2.289	20.6	20.6	6 10	14 26.88	-13 55.7	1.648	2.509	15.2	19.3
23588	1995 UX ₃		5 6.7 219°71	2°0/ 7.8 18			147762	2005 QA ₁₇		5 6.7 243°60	1°0/ 5.8 18		
4 1	15 24.76	-22 19.6	1.864	2.682	14.8	18.8	4 1	15 17.81	-15 3.7	2.437	3.269	11.3	20.5
4 11	15 19.29	-22 31.6	1.774	2.675	11.5	18.6	4 11	15 13.34	-14 38.2	2.348	3.262	8.5	20.3
4 21	15 11.30	-22 32.7	1.706	2.668	7.7	18.3	4 21	15 7.18	-14 7.1	2.283	3.255	5.3	20.1
5 1	15 1.46	-22 22.5	1.663	2.661	3.7	18.1	5 1	14 59.88	-13 32.6	2.245	3.248	2.0	19.9
5 11	14 50.84	-22 2.3	1.647	2.653	2.5	18.0	5 11	14 52.13	-12 57.8	2.236	3.241	2.1	19.8
5 21	14 40.61	-21 35.6	1.660	2.645	6.3	18.2	5 21	14 44.70	-12 26.0	2.256	3.234	5.5	20.1
5 31	14 31.87	-21 7.2	1.698	2.637	10.4	18.4	5 31	14 38.27	-12 0.4	2.302	3.227	8.7	20.3
6 10	14 25.44	-20 42.3	1.759	2.627	14.1	18.6	6 10	14 33.40	-11 43.6	2.372	3.220	11.6	20.4
316443	2010 UF ₄₇		5 6.7 309°25	2°8/ 7.9 17			141952	2002 PR ₁₁₁		5 6.7 332°13	5°5/ 3.4 18		
4 1	15 23.27	-22 10.1	1.431	2.268	17.4	20.5	4 1	15 18.38	-7 42.4	1.347	2.215	16.5	19.5
4 11	15 18.94	-22 42.7	1.345	2.257	13.7	20.2	4 11	15 14.90	-6 39.8	1.276	2.207	12.7	19.2
4 21	15 11.49	-23 4.0	1.280	2.246	9.3	19.9	4 21	15 8.68	-5 34.0	1.226	2.200	8.6	18.9
5 1	15 1.64	-23 12.4	1.237	2.236	4.7	19.6	5 1	15 0.53	-4 32.2	1.199	2.194	5.7	18.8
5 11	14 50.67	-23 8.3	1.220	2.225	3.3	19.5	5 11	14 51.64	-3 42.5	1.197	2.188	6.9	18.8
5 21	14 40.10	-22 54.8	1.227	2.215	7.6	19.7	5 21	14 43.31	-3 11.2	1.218	2.183	10.8	19.0
5 31	14 31.38	-22 37.3	1.258	2.206	12.4	20.0	5 31	14 36.72	-3 2.1	1.261	2.178	15.0	19.2
6 10	14 25.54	-22 22.2	1.310	2.196	16.8	20.2	6 10	14 32.66	-3 15.8	1.323	2.174	18.8	19.5
12392	1994 WR ₂		5 6.7 202°95	1°6/ 5.4 18			269022	2007 EU ₂₁₃		5 6.7 274°53	0°3/ 6.9 17		
4 1	15 21.07	-12 20.8	2.575	3.402	10.9	19.2	4 1	15 20.67	-19 11.2	1.754	2.590	14.8	21.2
4 11	15 15.67	-12 3.0	2.486	3.397	8.2	19.0	4 11	15 16.18	-18 56.2	1.672	2.586	11.3	21.0
4 21	15 8.59	-11 41.9	2.421	3.392	5.2	18.8	4 21	15 9.30	-18 30.8	1.611	2.582	7.3	20.7
5 1	15 0.37	-11 19.7	2.384	3.386	2.2	18.6	5 1	15 0.72	-17 56.5	1.575	2.578	2.8	20.4
5 11	14 51.71	-10 58.8	2.377	3.379	2.5	18.6	5 11	14 51.50	-17 16.9	1.566	2.573	1.9	20.4
5 21	14 43.35	-10 42.1	2.399	3.372	5.6	18.8	5 21	14 42.73	-16 36.6	1.583	2.569	6.5	20.6
5 31	14 35.98	-10 31.9	2.448	3.364	8.7	19.0	5 31	14 35.44	-16 0.9	1.626	2.565	10.8	20.9
6 10	14 30.15	-10 30.0	2.522	3.356	11.4	19.1	6 10	14 30.39	-15 34.3	1.691	2.560	14.5	21.1
216463	1849 T ₋₃		5 6.7 254°07	1°0/ 7.7 18			109136	2001 QM ₅₄		5 6.7 182°85	1°2/ 5.8 17		
4 1	15 17.09	-23 22.1	2.394	3.208	12.0	19.9	4 1	15 22.27	-14 51.6	2.198	3.027	12.4	21.0
4 11	15 12.85	-22 40.9	2.303	3.204	9.3	19.7	4 11	15 16.81	-14 25.0	2.115	3.028	9.4	20.8
4 21	15 6.87	-21 47.3	2.236	3.200	6.1	19.4	4 21	15 9.42	-13 52.4	2.056	3.028	5.9	20.5
5 1	14 59.73	-20 43.1	2.196	3.196	2.6	19.2	5 1	15 0.71	-13 16.2	2.024	3.027	2.3	20.3
5 11	14 52.20	-19 32.0	2.185	3.192	1.6	19.1	5 11	14 51.53	-12 39.7	2.022	3.026	2.4	20.3
5 21	14 45.05	-18 18.8	2.203	3.188	5.0	19.4	5 21	14 42.76	-12 6.8	2.047	3.025	6.1	20.5
5 31	14 39.00	-17 8.7	2.248	3.184	8.3	19.6	5 31	14 35.21	-11 41.0	2.100	3.022	9.6	20.7
6 10	14 34.58	-16 6.4	2.317	3.180	11.3	19.7	6 10	14 29.48	-11 25.1	2.176	3.019	12.7	20.9
268049	2004 QK ₂₄		5 6.7 254°92	11°8/23.9 18			499300	2009 WB ₂₀		5 6.7 97°29	2°1/ 8.2 17		
4 1	15 17.66	+11 8.0	1.852	2.681	14.4	20.2	4 1	15 21.95	-24 26.6	1.945	2.759	14.4	21.5
4 11	15 13.60	+13 37.4	1.799	2.676	12.7	20.1	4 11	15 16.81	-24 16.4	1.875	2.774	11.2	21.3
4 21	15 7.49	+15 54.6	1.771	2.671	11.8	20.0	4 21	15 9.48	-23 52.9	1.828	2.788	7.5	21.1
5 1	14 59.99	+17 49.2	1.767	2.665	12.1	20.0	5 1	15 0.72	-23 16.8	1.805	2.802	3.7	20.9
5 11	14 52.02	+19 13.0	1.786	2.660	13.3	20.1	5 11	14 51.55	-22 31.1	1.811	2.816	2.4	20.8
5 21	14 44.50	+20 1.9	1.827	2.654	15.2	20.2	5 21	14 42.98	-21 40.5	1.844	2.830	5.7	21.0
5 31	14 38.29	+20 15.8	1.886	2.649	17.2	20.3	5 31	14 35.91	-20 50.4	1.903	2.843	9.3	21.3
6 10	14 34.01	+19 58.2	1.960	2.643	19.0	20.4	6 10	14 30.93	-20 6.0	1.986	2.857	12.6	21.5
458147	2010 JE ₃₀		5 6.7 308°72	3°2/ 5.1 17			161400	2003 UV ₁₆₄		5 6.7 197°53	2°1/ 5.1 18		
4 1	15 19.64	-12 18.0	1.239	2.107	17.6								

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
322120	2010 VS ₁₆₈		5 6.7 178°29	0°3/ 6.4 18			245408	2005 JO		5 6.7 241°87	1°1/ 5.8 17	R	
4 1	15 16.68	-16 50.1	3.154	3.973	9.3	22.1	4 1	15 18.42	-15 35.0	2.184	3.019	12.3	21.2
4 11	15 12.09	-16 33.6	3.067	3.974	7.0	21.9	4 11	15 13.98	-15 3.6	2.098	3.014	9.3	21.0
4 21	15 6.21	-16 12.2	3.005	3.975	4.4	21.8	4 21	15 7.67	-14 25.3	2.036	3.009	5.8	20.8
5 1	14 59.49	-15 47.2	2.972	3.975	1.6	21.6	5 1	15 0.09	-13 42.8	2.001	3.005	2.2	20.5
5 11	14 52.46	-15 20.8	2.969	3.975	1.4	21.5	5 11	14 52.04	-12 59.6	1.995	3.000	2.3	20.5
5 21	14 45.70	-14 55.2	2.995	3.975	4.2	21.8	5 21	14 44.35	-12 20.0	2.016	2.995	6.0	20.8
5 31	14 39.72	-14 32.9	3.049	3.975	6.8	21.9	5 31	14 37.80	-11 47.6	2.063	2.990	9.5	21.0
6 10	14 34.96	-14 15.9	3.129	3.974	9.1	22.1	6 10	14 32.99	-11 25.6	2.134	2.984	12.6	21.2
508630	2017 SV ₄₂		5 6.7 205°55	5°0/ 1.6 17			299438	2006 AN ₅₉		5 6.7 201°49	0°4/ 6.9 16		
4 1	15 18.36	- 3 5.2	2.579	3.414	10.6	22.4	4 1	15 25.35	-19 32.4	1.756	2.583	15.1	22.7
4 11	15 13.56	- 1 47.9	2.499	3.409	8.3	22.2	4 11	15 19.77	-19 18.2	1.670	2.580	11.6	22.5
4 21	15 7.23	- 0 30.9	2.445	3.402	6.1	22.1	4 21	15 11.61	-18 53.0	1.606	2.575	7.5	22.2
5 1	14 59.88	+ 0 40.7	2.419	3.395	5.0	22.0	5 1	15 1.61	-18 18.1	1.568	2.570	2.9	21.9
5 11	14 52.16	+ 1 41.9	2.422	3.388	5.9	22.0	5 11	14 50.88	-17 36.6	1.557	2.564	2.0	21.8
5 21	14 44.76	+ 2 29.1	2.452	3.380	8.1	22.2	5 21	14 40.63	-16 53.6	1.573	2.558	6.7	22.1
5 31	14 38.30	+ 2 59.7	2.508	3.371	10.5	22.3	5 31	14 31.97	-16 14.5	1.616	2.551	11.1	22.4
6 10	14 33.27	+ 3 13.2	2.586	3.361	12.8	22.4	6 10	14 25.69	-15 44.4	1.681	2.543	14.9	22.6
136792	1997 AU ₁₆		5 6.7 101°02	10°7/ 26.4 18			168927	2000 YD ₆₈		5 6.7 110°87	14°2/ 25.9 18		
4 1	15 22.34	+23 48.4	2.764	3.510	12.3	20.0	4 1	15 23.65	+19 15.0	1.730	2.526	16.6	19.4
4 11	15 16.23	+24 52.0	2.743	3.535	11.3	19.9	4 11	15 18.03	+21 3.8	1.702	2.541	15.1	19.3
4 21	15 8.69	+25 37.3	2.745	3.560	10.8	19.9	4 21	15 10.18	+22 29.2	1.694	2.556	14.3	19.3
5 1	15 0.33	+25 59.6	2.768	3.585	10.7	20.0	5 1	15 0.95	+23 22.5	1.708	2.570	14.3	19.3
5 11	14 51.89	+25 56.8	2.815	3.609	11.2	20.0	5 11	14 51.47	+23 38.8	1.742	2.584	15.1	19.4
5 21	14 44.01	+25 29.3	2.882	3.633	12.1	20.1	5 21	14 42.76	+23 18.1	1.796	2.597	16.5	19.5
5 31	14 37.28	+24 39.0	2.970	3.656	13.0	20.2	5 31	14 35.72	+22 23.7	1.867	2.610	18.0	19.7
6 10	14 32.09	+23 29.7	3.075	3.678	13.9	20.4	6 10	14 30.90	+21 1.8	1.954	2.623	19.4	19.8
290879	2005 WH ₆₉		5 6.7 331°71	1°5/ 5.9 17			501864	2014 WX ₂₇₄		5 6.7 122°15	4°5/ 3.8 17		
4 1	15 21.23	-14 10.2	1.717	2.562	14.6	20.9	4 1	15 21.82	- 7 18.9	1.739	2.587	14.3	21.9
4 11	15 16.55	-13 54.3	1.640	2.561	11.1	20.7	4 11	15 16.75	- 6 27.6	1.675	2.596	10.9	21.7
4 21	15 9.50	-13 32.5	1.585	2.560	7.0	20.5	4 21	15 9.48	- 5 35.3	1.634	2.604	7.3	21.5
5 1	15 0.79	-13 7.4	1.556	2.559	2.7	20.2	5 1	15 0.75	- 4 47.4	1.619	2.612	4.7	21.3
5 11	14 51.47	-12 42.9	1.553	2.558	2.8	20.2	5 11	14 51.59	- 4 9.4	1.630	2.620	5.6	21.4
5 21	14 42.64	-12 22.8	1.577	2.557	7.1	20.5	5 21	14 43.03	- 3 45.4	1.668	2.628	8.8	21.6
5 31	14 35.31	-12 11.0	1.625	2.557	11.3	20.7	5 31	14 35.96	- 3 38.0	1.730	2.635	12.3	21.8
6 10	14 30.19	-12 10.1	1.696	2.556	14.9	20.9	6 10	14 31.02	- 3 47.5	1.813	2.642	15.4	22.0
468040	2013 QH ₃₉		5 6.7 314°71	0°0/ 6.6 17			297215	2011 JJ		5 6.7 256°33	0°2/ 6.4 18		
4 1	15 17.61	-19 4.6	1.344	2.201	17.2	21.3	4 1	15 11.11	-18 4.2	4.318	5.135	7.0	20.4
4 11	15 14.69	-18 36.4	1.255	2.181	13.3	21.0	4 11	15 7.64	-17 26.0	4.226	5.132	5.3	20.3
4 21	15 8.81	-17 53.3	1.185	2.161	8.5	20.6	4 21	15 3.30	-16 43.0	4.161	5.130	3.3	20.2
5 1	15 0.67	-16 57.5	1.138	2.142	3.2	20.3	5 1	14 58.41	-15 56.7	4.124	5.127	1.2	20.0
5 11	14 51.50	-15 54.4	1.115	2.123	2.5	20.1	5 11	14 53.34	-15 9.3	4.118	5.125	1.0	20.0
5 21	14 42.70	-14 51.5	1.116	2.104	8.2	20.4	5 21	14 48.45	-14 22.8	4.143	5.123	3.2	20.1
5 31	14 35.66	-13 56.9	1.140	2.087	13.5	20.7	5 31	14 44.09	-13 39.3	4.196	5.120	5.2	20.3
6 10	14 31.36	-13 17.3	1.184	2.070	18.2	20.9	6 10	14 40.57	-13 0.9	4.276	5.118	6.9	20.4
275691	2000 SS ₁₆₈		5 6.7 287°62	1°1/ 5.8 18			244669	2003 KE ₁₄		5 6.7 269°73	0°3/ 6.6 17		
4 1	15 19.30	-17 38.4	1.804	2.644	14.2	20.4	4 1	15 24.40	-16 50.4	1.560	2.401	16.0	20.8
4 11	15 15.29	-16 46.3	1.697	2.615	10.9	20.1	4 11	15 19.59	-16 46.5	1.463	2.381	12.4	20.5
4 21	15 8.87	-15 40.8	1.612	2.586	7.0	19.8	4 21	15 11.84	-16 34.0	1.387	2.360	8.0	20.2
5 1	15 0.63	-14 24.9	1.553	2.557	2.6	19.5	5 1	15 1.82	-16 14.2	1.335	2.338	3.0	19.9
5 11	14 51.54	-13 4.2	1.521	2.527	2.8	19.4	5 11	14 50.68	-15 49.9	1.309	2.317	2.4	19.8
5 21	14 42.68	-11 45.6	1.517	2.497	7.4	19.6	5 21	14 39.79	-15 25.5	1.310	2.295	7.7	20.0
5 31	14 35.12	-10 36.1	1.537	2.467	11.9	19.8	5 31	14 30.51	-15 6.4	1.335	2.272	12.7	20.3
6 10	14 29.71	- 9 41.7	1.580	2.436	16.0	20.0	6 10	14 23.84	-14 57.1	1.381	2.249	17.1	20.5
48512	1993 FU ₁₅		5 6.7 78°80	1°3/ 7.6 18			122191	2000 KV ₇₉		5 6.7 337°36	6°6/ 3.7 17		
4 1	15 22.44	-20 53.5	2.179	2.995	13.0	18.7	4 1	15 19.45	- 5 31.3	1.134	2.010	18.3	19.2
4 11	15 16.89	-21 3.0	2.114	3.016	9.9	18.6	4 11	15 16.20	- 4 44.7	1.067	2.001	14.2	19.0
4 21	15 9.41	-21 3.8	2.073	3.037	6.5	18.4	4 21	15 9.77	- 3 58.9	1.018	1.993	9.9	18.7
5 1	15 0.68	-20 56.5	2.058	3.058	2.9	18.2	5 1	15 1.02	- 3 21.7	0.991	1.985	6.8	18.5
5 11	14 51.61	-20 42.8	2.071	3.078	1.8	18.1	5 11	14 51.34	- 3 1.0	0.987	1.978	7.9	18.5
5 21	14 43.06	-20 25.6	2.113	3.098	5.2	18.4	5 21	14 42.27	- 3 2.1	1.005	1.973	12.1	18.7
5 31	14 35.85	-20 8.4	2.182	3.118	8.5	18.7	5 31	14 35.23	- 3 27.5	1.043	1.968	16.7	19.0
6 10	14 30.52	-19 54.7	2.275	3.138	11.5	18.9	6 10	14 31.13	- 4 15.7	1.098	1.964	20.8	19.2
508057	2015 BH ₅₃₇		5 6.7 233°70	1°4/ 7.6 17			102630	1999 VM ₃₀		5 6.7 258°27	0°5/ 6.9 18		
4 1	15 21.45	-21 11.8	2.078	2.899	13.4	21.7	4 1	15 23.33	-19 30.2	1.831	2.659	14.6	20.3
4 11	15 16.49	-21 17.3	1.990	2.895	10.3	21.5	4 11	15 18.35	-19 17.5	1.729	2.639	11.3	20.0
4 21	15 9.37	-21 13.4	1.925	2.890	6.8	21.2	4 21	15 10.82	-18 54.0	1.649	2.618	7.3	19.7
5 1	15 0.75	-21 0.5	1.886	2.886	3.1	21.0	5 1	15 1.38	-18 20.7	1.594	2.597	2.9	19.4
5 11	14 51.51	-20 40.4	1.875	2.882	2.0	20.9	5 11	14 51.04	-17 40.5	1.567	2.575	2.0	19.3
5 21	14 42.65	-20 16.1	1.891	2.877	5.6	21.1	5 21	14 40.95	-16 57.8	1.567	2.552	6.7	19.5
5 31	14 35.07	-19 51.8	1.934	2.872	9.4	21.3	5 31	14 32.26	-16 18.2	1.593	2.529	11.2	19.7
6 10	14 29.46	-19 31.5	2.001	2.868	12.7	21.5	6 10	14 25.84	-15 47.0	1.642	2.506	15.1	19.9
6409	1992 VC		5 6.7 298°95	1°6/ 6.0 18	R		299982	2006 TC ₁₂₄		5 6.7 318°30	1°3/ 6.0 16		
4 1	15 24.44	-11 45.4	1.647	2.490									

EPHEMERIDES

5 6.7

5 6.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
511328	2014 <i>DF</i> ₁₄₆		5 6.7	8°91	5°3/ 2.0	18	361657	2007 <i>TP</i> ₃₅₆		5 6.7	275°97	5°0/ 3.6	17
4 1	15 16.10	- 3 26.6	2.165	3.013	11.9	21.2	4 1	15 21.22	- 8 36.7	1.511	2.368	15.6	21.0
4 11	15 12.12	- 2 19.0	2.096	3.013	9.2	21.0	4 11	15 17.04	- 7 34.0	1.421	2.347	12.1	20.7
4 21	15 6.43	- 1 12.7	2.051	3.013	6.7	20.9	4 21	15 10.12	- 6 25.7	1.352	2.325	8.1	20.5
5 1	14 59.62	- 0 13.2	2.033	3.014	5.3	20.8	5 1	15 1.16	- 5 18.0	1.308	2.303	5.2	20.2
5 11	14 52.45	+ 0 34.5	2.042	3.015	6.3	20.8	5 11	14 51.25	- 4 18.7	1.289	2.281	6.4	20.2
5 21	14 45.67	+ 1 6.7	2.077	3.016	8.7	21.0	5 21	14 41.67	- 3 34.7	1.296	2.259	10.4	20.4
5 31	14 39.99	+ 1 21.1	2.137	3.017	11.4	21.1	5 31	14 33.64	- 3 11.2	1.325	2.236	14.8	20.6
6 10	14 35.92	+ 1 17.8	2.217	3.018	13.9	21.3	6 10	14 28.08	- 3 10.2	1.373	2.214	18.8	20.8
120828	1998 <i>HE</i> ₁₂₂		5 6.7	22°92	7°2/ 4.2	18	162659	2000 <i>SJ</i> ₂₄₇		5 6.7	193°94	2°7/ 5.1	16
4 1	15 22.92	- 0 13.7	1.306	2.166	17.4	18.2	4 1	15 23.35	-11 54.8	1.689	2.533	14.9	20.7
4 11	15 18.14	- 0 3.0	1.254	2.176	13.7	18.0	4 11	15 18.17	-11 18.9	1.612	2.532	11.3	20.5
4 21	15 10.59	- 0 2.1	1.223	2.187	9.9	17.8	4 21	15 10.55	-10 37.9	1.557	2.530	7.2	20.2
5 1	15 1.20	- 0 16.4	1.214	2.199	7.4	17.7	5 1	15 1.22	- 9 55.5	1.527	2.528	3.4	20.0
5 11	14 51.30	- 0 49.5	1.229	2.212	8.0	17.7	5 11	14 51.27	- 9 16.8	1.525	2.526	4.0	20.0
5 21	14 42.23	- 1 41.9	1.268	2.226	11.1	17.9	5 21	14 41.84	- 8 46.7	1.549	2.523	8.0	20.2
5 31	14 35.09	- 2 51.6	1.329	2.241	14.7	18.2	5 31	14 33.96	- 8 29.1	1.598	2.520	12.1	20.5
6 10	14 30.60	- 4 15.4	1.410	2.257	18.1	18.5	6 10	14 28.37	- 8 26.1	1.669	2.516	15.7	20.7
18100	Lebreton		5 6.7	314°83	2°1/ 5.5	18	513172	2004 <i>RC</i> ₆₁		5 6.7	202°50	6°7/ 13.0	18
4 1	15 17.70	-15 32.6	1.214	2.083	17.9	18.1	4 1	15 27.24	-43 42.4	3.475	4.149	11.1	21.9
4 11	15 14.96	-14 50.9	1.130	2.064	13.7	17.8	4 11	15 20.56	-44 38.2	3.373	4.144	9.8	21.8
4 21	15 9.09	-13 56.0	1.066	2.045	8.7	17.5	4 21	15 11.88	-45 20.1	3.293	4.138	8.4	21.7
5 1	15 0.83	-12 52.5	1.024	2.027	3.5	17.1	5 1	15 1.72	-45 45.1	3.238	4.132	7.3	21.6
5 11	14 51.47	-11 47.5	1.005	2.010	3.9	17.1	5 11	14 50.85	-45 51.5	3.209	4.126	6.7	21.5
5 21	14 42.54	-10 49.6	1.009	1.993	9.6	17.3	5 21	14 40.15	-45 39.9	3.207	4.119	6.9	21.5
5 31	14 35.49	-10 6.7	1.035	1.977	15.0	17.6	5 31	14 30.47	-45 13.0	3.232	4.112	7.9	21.6
6 10	14 31.36	- 9 44.2	1.079	1.962	19.8	17.8	6 10	14 22.51	-44 35.1	3.282	4.104	9.3	21.7
477731	2010 <i>TX</i> ₄₄		5 6.7	112°21	1°9/ 8.3	16	216034	2006 <i>BN</i> ₁₄₃		5 6.7	282°56	5°2/ 27.7	18
4 1	15 19.57	-23 44.7	2.738	3.540	11.0	21.3	4 1	15 10.44	+ 9 51.3	4.350	5.159	7.1	19.8
4 11	15 14.53	-23 56.4	2.656	3.547	8.6	21.2	4 11	15 7.13	+10 46.0	4.284	5.153	6.1	19.7
4 21	15 7.89	-23 59.6	2.598	3.555	5.8	21.0	4 21	15 2.99	+11 34.7	4.243	5.147	5.4	19.6
5 1	15 0.16	-23 54.3	2.568	3.562	3.0	20.8	5 1	14 58.32	+12 14.6	4.229	5.141	5.3	19.6
5 11	14 52.05	-23 41.6	2.566	3.570	2.1	20.8	5 11	14 53.46	+12 43.4	4.242	5.135	5.8	19.7
5 21	14 44.27	-23 23.9	2.593	3.577	4.5	20.9	5 21	14 48.77	+12 59.9	4.281	5.129	6.8	19.7
5 31	14 37.49	-23 3.9	2.648	3.584	7.3	21.1	5 31	14 44.58	+13 3.5	4.343	5.123	7.9	19.8
6 10	14 32.23	-22 45.0	2.728	3.591	9.8	21.3	6 10	14 41.16	+12 54.6	4.426	5.117	9.0	19.9
431017	2005 <i>YQ</i> ₁₃₂		5 6.7	212°83	1°5/ 7.8	17	132631	2002 <i>LW</i> ₂₇		5 6.7	332°05	2°4/ 4.9	18
4 1	15 22.75	-22 16.9	2.192	3.003	13.0	22.0	4 1	15 18.55	-12 59.2	1.878	2.724	13.5	19.9
4 11	15 17.40	-22 16.1	2.098	2.997	10.1	21.7	4 11	15 14.29	-12 10.2	1.802	2.724	10.2	19.7
4 21	15 9.94	-22 5.1	2.028	2.991	6.7	21.5	4 21	15 7.97	-11 14.8	1.749	2.723	6.4	19.5
5 1	15 0.98	-21 44.0	1.985	2.983	3.1	21.3	5 1	15 0.24	-10 17.3	1.722	2.723	3.0	19.3
5 11	14 51.42	-21 14.9	1.969	2.976	2.0	21.2	5 11	14 52.03	- 9 22.9	1.722	2.723	3.6	19.3
5 21	14 42.20	-20 41.1	1.983	2.968	5.5	21.4	5 21	14 44.29	- 8 36.6	1.749	2.722	7.3	19.5
5 31	14 34.22	-20 6.7	2.023	2.959	9.1	21.6	5 31	14 37.87	- 8 2.6	1.801	2.722	11.0	19.7
6 10	14 28.18	-19 36.5	2.087	2.950	12.4	21.8	6 10	14 33.40	- 7 43.5	1.875	2.722	14.3	19.9
382025	2011 <i>BG</i> ₁₀₈		5 6.7	307°65	1°9/ 5.5	17	227449	2005 <i>WC</i> ₅₄		5 6.7	148°20	1°3/ 5.7	17
4 1	15 18.15	-14 53.5	1.567	2.421	15.3	20.9	4 1	15 22.22	-14 4.8	2.265	3.094	12.1	21.3
4 11	15 14.60	-14 13.3	1.478	2.404	11.7	20.7	4 11	15 16.66	-13 41.4	2.191	3.103	9.1	21.1
4 21	15 8.50	-13 23.5	1.411	2.388	7.4	20.4	4 21	15 9.27	-13 13.1	2.141	3.112	5.7	20.9
5 1	15 0.52	-12 27.7	1.368	2.371	3.0	20.1	5 1	15 0.68	-12 42.3	2.118	3.121	2.3	20.7
5 11	14 51.74	-11 31.8	1.351	2.355	3.4	20.0	5 11	14 51.72	-12 12.1	2.125	3.129	2.4	20.7
5 21	14 43.33	-10 41.9	1.359	2.339	8.1	20.3	5 21	14 43.21	-11 45.9	2.160	3.136	5.9	20.9
5 31	14 36.42	-10 4.1	1.391	2.324	12.7	20.5	5 31	14 35.91	-11 26.7	2.222	3.143	9.2	21.1
6 10	14 31.86	- 9 42.3	1.443	2.309	16.7	20.7	6 10	14 30.36	-11 16.7	2.308	3.149	12.1	21.3
53964	2000 <i>GO</i> ₆₄		5 6.7	91°63	9°1/ 30.3	18	2619	Skalnaté Pleso		5 6.7	313°42	0°2/ 6.6	18
4 1	15 20.71	+ 3 33.5	1.674	2.520	14.9	19.2	4 1	15 18.24	-17 50.9	2.100	2.933	12.8	17.4
4 11	15 15.87	+ 5 5.2	1.628	2.533	12.1	19.0	4 11	15 13.96	-17 30.0	2.016	2.930	9.7	17.2
4 21	15 8.88	+ 6 27.9	1.603	2.546	9.9	18.9	4 21	15 7.73	-17 0.9	1.954	2.926	6.1	17.0
5 1	15 0.52	+ 7 33.1	1.604	2.559	9.1	18.9	5 1	15 0.16	-16 25.6	1.920	2.923	2.3	16.7
5 11	14 51.83	+ 8 14.6	1.629	2.572	10.1	19.0	5 11	14 52.09	-15 47.3	1.912	2.920	1.8	16.7
5 21	14 43.82	+ 8 29.2	1.678	2.585	12.4	19.1	5 21	14 44.41	-15 10.1	1.933	2.917	5.8	16.9
5 31	14 37.33	+ 8 17.0	1.748	2.597	14.9	19.3	5 31	14 37.92	-14 37.9	1.980	2.914	9.4	17.1
6 10	14 32.95	+ 7 41.1	1.837	2.610	17.3	19.5	6 10	14 33.25	-14 14.4	2.049	2.911	12.6	17.3
297538	2001 <i>OL</i> ₃₉		5 6.7	236°39	1°7/ 5.8	16	366577	2002 <i>TH</i> ₆₆		5 6.7	236°09	10°8/ 15.6	17
4 1	15 25.77	-13 46.6	1.784	2.619	14.6	21.3	4 1	15 27.78	-47 19.3	1.927	2.625	18.3	20.7
4 11	15 20.14	-13 27.0	1.689	2.604	11.2	21.0	4 11	15 22.42	-47 56.1	1.833	2.617	16.4	20.5
4 21	15 11.93	-13 1.0	1.615	2.588	7.1	20.7	4 21	15 13.70	-48 5.8	1.755	2.609	14.3	20.3
5 1	15 1.79	-12 31.3	1.568	2.571	2.9	20.4	5 1	15 2.50	-47 42.1	1.698	2.600	12.2	20.2
5 11	14 50.78	-12 1.6	1.549	2.553	3.1	20.4	5 11	14 50.32	-46 42.3	1.662	2.591	11.0	20.1
5 21	14 40.07	-11 36.2	1.557	2.534	7.6	20.6	5 21	14 38.84	-45 9.0	1.650	2.582	11.0	20.0
5 31	14 30.82	-11 19.3	1.591	2.515	11.9	20.8	5 31	14 29.56	-43 10.4	1.663	2.572	12.4	20.1
6 10	14 23.89	-11 14.4	1.646	2.495	15.8	21.0	6 10	14 23.44	-40 58.3	1.699	2.563	14.7	20.2
429986	2013 <i>PE</i> ₂₈		5 6.7	156°65	6°4/ 11.4	17	29132	Bradpitt		5 6.7	67°68	3°7/ 4.5	18

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
367502	2009 <i>HG</i> ₁₀₄		5 6.7 224°13	5°9/ 1.5 17			422464	2014 <i>SK</i> ₃₁₅		5 6.7 128°02	1°7/ 5.6 16		
4 1	15 19.51	- 8 5.2	1.694	2.548	14.4	20.9	4 1	15 23.85	-13 54.0	1.850	2.686	14.1	22.3
4 11	15 15.19	- 5 59.6	1.620	2.543	11.0	20.7	4 11	15 18.22	-13 26.2	1.783	2.699	10.6	22.1
4 21	15 8.61	- 3 47.1	1.570	2.538	7.7	20.5	4 21	15 10.40	-12 52.7	1.739	2.712	6.7	21.9
5 1	15 0.50	- 1 36.7	1.546	2.533	5.9	20.3	5 1	15 1.14	-12 16.4	1.721	2.724	2.7	21.6
5 11	14 51.86	+ 0 21.2	1.551	2.527	7.4	20.4	5 11	14 51.46	-11 41.7	1.732	2.735	2.9	21.7
5 21	14 43.74	+ 1 58.2	1.581	2.522	10.8	20.6	5 21	14 42.38	-11 12.4	1.769	2.746	6.9	21.9
5 31	14 37.06	+ 3 8.7	1.636	2.515	14.3	20.8	5 31	14 34.81	-10 52.4	1.833	2.757	10.7	22.2
6 10	14 32.50	+ 3 51.2	1.710	2.509	17.4	21.0	6 10	14 29.35	-10 43.9	1.919	2.767	13.9	22.4
496951	2001 <i>YD</i> ₁₃₂		5 6.7 127°29	5°2/10.9 17			251443	2008 <i>CY</i> ₄₇		5 6.7 92°62	3°2/ 4.5 18		
4 1	15 24.49	-33 36.8	2.086	2.857	15.0	21.9	4 1	15 22.35	-12 0.4	1.645	2.492	15.0	20.3
4 11	15 18.86	-33 46.2	2.009	2.869	12.3	21.7	4 11	15 17.17	-10 57.3	1.590	2.512	11.3	20.1
4 21	15 10.87	-33 37.3	1.953	2.880	9.3	21.6	4 21	15 9.73	- 9 48.8	1.558	2.532	7.1	19.9
5 1	15 1.32	-33 8.3	1.921	2.892	6.6	21.4	5 1	15 0.88	- 8 40.5	1.552	2.551	3.6	19.7
5 11	14 51.27	-32 20.6	1.916	2.903	5.2	21.4	5 11	14 51.71	- 7 38.9	1.572	2.570	4.4	19.8
5 21	14 41.83	-31 18.4	1.938	2.913	6.6	21.5	5 21	14 43.28	- 6 49.3	1.620	2.589	8.2	20.1
5 31	14 33.99	-30 8.1	1.987	2.923	9.3	21.6	5 31	14 36.49	- 6 15.9	1.692	2.607	11.9	20.3
6 10	14 28.39	-28 56.9	2.060	2.933	12.1	21.8	6 10	14 31.92	- 6 0.0	1.785	2.625	15.1	20.6
107596	2001 <i>DA</i> ₁₀₄		5 6.7 146°07	6°3/ 1.6 17			384979	2012 <i>TZ</i> ₁₇₃		5 6.7 238°70	1°8/ 8.1 17		
4 1	15 19.80	+ 0 18.4	2.176	3.014	12.2	20.3	4 1	15 20.68	-23 22.5	2.154	2.967	13.2	21.6
4 11	15 14.83	+ 1 22.0	2.114	3.020	9.7	20.2	4 11	15 15.91	-23 19.6	2.062	2.961	10.3	21.4
4 21	15 8.11	+ 2 20.9	2.076	3.027	7.4	20.0	4 21	15 9.04	-23 5.5	1.992	2.954	6.9	21.2
5 1	15 0.26	+ 3 9.7	2.064	3.033	6.3	20.0	5 1	15 0.70	-22 40.4	1.949	2.947	3.4	20.9
5 11	14 52.07	+ 3 43.7	2.079	3.038	7.2	20.0	5 11	14 51.77	-22 6.4	1.933	2.939	2.2	20.8
5 21	14 44.34	+ 3 59.9	2.121	3.044	9.4	20.2	5 21	14 43.19	-21 27.0	1.946	2.932	5.5	21.0
5 31	14 37.78	+ 3 57.3	2.186	3.049	11.8	20.3	5 31	14 35.85	-20 46.8	1.985	2.924	9.1	21.2
6 10	14 32.92	+ 3 36.8	2.273	3.053	14.2	20.5	6 10	14 30.43	-20 10.7	2.048	2.916	12.3	21.4
316900	2000 <i>SQ</i> ₂₂₇		5 6.7 81°73	2°2/ 6.5 18			222693	2002 <i>AO</i> ₉		5 6.7 71°51	4°3/ 9.7 17		
4 1	15 42.47	- 6 34.8	1.011	1.857	22.3	19.3	4 1	15 23.19	-29 19.5	1.729	2.532	16.3	20.1
4 11	15 34.29	- 8 3.4	0.949	1.868	17.2	19.1	4 11	15 18.13	-29 27.2	1.663	2.549	13.1	19.9
4 21	15 21.58	- 9 43.6	0.907	1.879	11.1	18.7	4 21	15 10.52	-29 16.9	1.619	2.567	9.4	19.7
5 1	15 5.50	-11 33.0	0.888	1.891	4.5	18.4	5 1	15 1.22	-28 47.8	1.598	2.585	5.8	19.5
5 11	14 48.14	-13 26.3	0.895	1.902	3.9	18.4	5 11	14 51.45	-28 2.3	1.604	2.602	4.3	19.5
5 21	14 31.88	-15 17.5	0.929	1.913	10.2	18.8	5 21	14 42.41	-27 5.4	1.636	2.620	6.6	19.7
5 31	14 18.79	-17 3.7	0.986	1.923	16.1	19.2	5 31	14 35.14	-26 4.2	1.693	2.637	10.1	19.9
6 10	14 9.99	-18 44.8	1.063	1.934	20.9	19.5	6 10	14 30.31	-25 5.8	1.774	2.654	13.4	20.1
258259	2001 <i>TN</i> ₂₀₅		5 6.7 91°11	6°3/ 2.7 18			255991	2006 <i>TL</i> ₁₀₂		5 6.7 61°28	0°1/ 6.9 17		
4 1	15 22.08	- 1 53.8	1.762	2.608	14.3	20.3	4 1	15 20.54	-20 12.6	1.531	2.373	16.2	20.5
4 11	15 16.81	- 0 58.3	1.710	2.624	11.1	20.2	4 11	15 16.27	-19 37.1	1.462	2.380	12.4	20.2
4 21	15 9.44	- 0 7.2	1.681	2.641	8.1	20.0	4 21	15 9.42	-18 47.9	1.414	2.387	7.9	20.0
5 1	15 0.75	+ 0 33.3	1.677	2.657	6.4	19.9	5 1	15 0.84	-17 47.9	1.391	2.394	3.0	19.7
5 11	14 51.74	+ 0 58.3	1.699	2.672	7.2	20.0	5 11	14 51.72	-16 42.5	1.394	2.401	2.1	19.7
5 21	14 43.39	+ 1 5.0	1.747	2.688	9.9	20.2	5 21	14 43.27	-15 38.6	1.422	2.409	7.0	20.0
5 31	14 36.53	+ 0 52.4	1.818	2.703	12.8	20.4	5 31	14 36.55	-14 42.8	1.476	2.416	11.5	20.3
6 10	14 31.74	+ 0 22.0	1.910	2.718	15.5	20.6	6 10	14 32.27	-14 0.3	1.550	2.424	15.3	20.5
242294	2003 <i>UV</i> ₂₈₉		5 6.7 79°93	1°6/ 5.5 17			938	Chlosinde		5 6.7 260°56	1°1/ 5.8 18		
4 1	15 18.56	-15 6.1	1.940	2.781	13.3	20.5	4 1	15 18.03	-14 39.8	2.578	3.408	10.8	16.7
4 11	15 14.23	-14 20.9	1.866	2.785	10.0	20.3	4 11	15 13.53	-14 15.7	2.479	3.392	8.2	16.5
4 21	15 7.89	-13 28.1	1.815	2.789	6.3	20.1	4 21	15 7.37	-13 46.3	2.403	3.375	5.2	16.3
5 1	15 0.21	-12 31.4	1.791	2.793	2.5	19.9	5 1	15 0.06	-13 13.7	2.356	3.359	2.0	16.0
5 11	14 52.11	-11 35.6	1.794	2.798	2.9	19.9	5 11	14 52.26	-12 40.8	2.337	3.342	2.1	16.0
5 21	14 44.49	-10 45.8	1.824	2.802	6.7	20.1	5 21	14 44.70	-12 10.6	2.347	3.325	5.4	16.2
5 31	14 38.18	-10 6.3	1.880	2.806	10.3	20.4	5 31	14 38.06	-11 46.3	2.384	3.307	8.6	16.4
6 10	14 33.77	- 9 39.9	1.958	2.810	13.5	20.6	6 10	14 32.89	-11 30.4	2.446	3.290	11.4	16.5
430512	2001 <i>WQ</i> ₂₅		5 6.7 157°51	0°0/ 6.6 17			293023	2006 <i>WQ</i> ₅₈		5 6.7 272°20	0°2/ 6.9 17		
4 1	15 21.93	-18 57.4	2.418	3.234	11.8	22.8	4 1	15 23.54	-17 28.4	1.644	2.482	15.5	20.6
4 11	15 16.37	-18 23.6	2.338	3.243	9.0	22.6	4 11	15 18.64	-17 36.1	1.559	2.475	11.9	20.4
4 21	15 9.06	-17 41.1	2.283	3.251	5.7	22.4	4 21	15 11.06	-17 36.1	1.496	2.468	7.7	20.1
5 1	15 0.61	-16 52.2	2.256	3.259	2.1	22.2	5 1	15 1.52	-17 29.2	1.457	2.460	2.9	19.8
5 11	14 51.82	-16 0.1	2.259	3.266	1.6	22.1	5 11	14 51.16	-17 17.6	1.445	2.453	2.1	19.7
5 21	14 43.48	-15 9.0	2.290	3.272	5.2	22.4	5 21	14 41.21	-17 4.8	1.460	2.446	6.9	20.0
5 31	14 36.30	-14 22.8	2.350	3.277	8.5	22.6	5 31	14 32.86	-16 55.1	1.500	2.439	11.5	20.2
6 10	14 30.80	-13 45.1	2.434	3.281	11.4	22.8	6 10	14 26.95	-16 52.3	1.561	2.432	15.4	20.4
385455	2003 <i>SW</i> ₂₃₆		5 6.7 197°37	1°5/ 7.9 18			417892	2007 <i>RQ</i> ₃₄		5 6.7 279°44	2°7/ 5.1 17		
4 1	15 21.77	-22 51.6	2.562	3.366	11.6	22.2	4 1	15 22.12	-13 28.4	1.521	2.372	15.9	22.2
4 11	15 16.35	-22 49.4	2.469	3.363	9.0	22.0	4 11	15 17.90	-12 43.7	1.422	2.346	12.2	21.8
4 21	15 9.14	-22 37.9	2.399	3.359	6.0	21.8	4 21	15 10.82	-11 49.2	1.343	2.319	7.8	21.5
5 1	15 0.68	-22 17.4	2.357	3.355	2.9	21.6	5 1	15 1.52	-10 48.9	1.289	2.291	3.5	21.2
5 11	14 51.75	-21 49.5	2.344	3.350	1.9	21.5	5 11	14 51.11	- 9 49.1	1.261	2.263	4.2	21.2
5 21	14 43.12	-21 17.2	2.360	3.344	4.8	21.7	5 21	14 40.93	- 8 56.6	1.258	2.234	9.1	21.4
5 31	14 35.57	-20 44.0	2.404	3.338	8.0	21.9	5 31	14 32.28	- 8 18.2	1.279	2.206	14.1	21.6
6 10	14 29.67	-20 13.9	2.473	3.332	10.8	22.1	6 10	14 26.18	- 7 58.2	1.319	2.176	18.5	21.7
116240	2003 <i>YQ</i> ₁₃		5 6.7 245°70	2°3/ 7.9 18			382473	2000 <i>UN</i> ₅₂		5 6.7 225°44	0°0/ 6.		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
354691	2005 <i>QS</i> ₆₄		5 6.7 276°69	2.4/ 8.5	17		360703	2004 <i>TD</i> ₃₄		5 6.7 82°52	0.3/ 6.9	18	
4 1	15 20.47	-24 42.9	2.370	3.175	12.4	21.0	4 1	15 23.25	-19 55.9	1.401	2.245	17.4	21.0
4 11	15 15.73	-24 53.1	2.263	3.155	9.8	20.8	4 11	15 18.50	-19 30.9	1.338	2.256	13.3	20.8
4 21	15 8.96	-24 52.9	2.178	3.134	6.8	20.6	4 21	15 10.92	-18 52.3	1.295	2.268	8.5	20.5
5 1	15 0.71	-24 41.9	2.120	3.114	3.7	20.3	5 1	15 1.44	-18 2.6	1.276	2.279	3.2	20.2
5 11	14 51.77	-24 20.9	2.090	3.093	2.6	20.2	5 11	14 51.39	-17 7.2	1.283	2.291	2.2	20.2
5 21	14 43.02	-23 52.6	2.088	3.072	5.3	20.4	5 21	14 42.14	-16 12.7	1.315	2.302	7.4	20.5
5 31	14 35.35	-23 20.7	2.112	3.051	8.7	20.5	5 31	14 34.85	-15 25.9	1.371	2.313	12.1	20.8
6 10	14 29.45	-22 49.8	2.162	3.030	11.8	20.7	6 10	14 30.24	-14 51.9	1.448	2.325	16.1	21.1
183050	2002 <i>QV</i> ₇₀		5 6.7 151°74	3.4/ 9.0	17 R		245500	2005 <i>QQ</i> ₁₅₆		5 6.7 184°97	5.5/ 12.1	18	
4 1	15 25.28	-27 5.2	1.971	2.770	14.8	21.6	4 1	15 21.26	-37 24.2	2.708	3.447	12.6	20.5
4 11	15 19.52	-27 13.8	1.892	2.778	11.7	21.4	4 11	15 16.14	-37 37.8	2.615	3.447	10.7	20.3
4 21	15 11.37	-27 7.8	1.834	2.785	8.2	21.2	4 21	15 9.09	-37 35.1	2.543	3.447	8.5	20.2
5 1	15 1.58	-26 46.6	1.802	2.792	4.8	21.0	5 1	15 0.73	-37 14.5	2.496	3.446	6.6	20.1
5 11	14 51.22	-26 11.7	1.797	2.798	3.5	20.9	5 11	14 51.88	-36 36.3	2.476	3.446	5.5	20.0
5 21	14 41.40	-25 27.0	1.820	2.803	6.1	21.1	5 21	14 43.43	-35 43.0	2.483	3.445	6.2	20.0
5 31	14 33.13	-24 38.3	1.869	2.808	9.6	21.3	5 31	14 36.17	-34 39.4	2.518	3.443	8.1	20.2
6 10	14 27.12	-23 51.7	1.942	2.813	12.8	21.5	6 10	14 30.71	-33 31.1	2.577	3.442	10.2	20.3
100637	1997 <i>VF</i> ₂		5 6.7 147°98	1.9/ 5.7	18		271852	2004 <i>TR</i> ₂₄₈		5 6.7 289°35	1.4/ 7.6	18	
4 1	15 25.34	-11 17.7	2.061	2.891	13.1	19.8	4 1	15 20.54	-21 36.3	1.775	2.605	14.9	20.8
4 11	15 19.22	-11 15.6	1.986	2.899	9.9	19.6	4 11	15 16.32	-21 31.8	1.680	2.589	11.6	20.5
4 21	15 11.03	-11 11.4	1.936	2.906	6.3	19.4	4 21	15 9.59	-21 15.4	1.606	2.573	7.7	20.2
5 1	15 1.43	-11 7.1	1.912	2.913	2.7	19.2	5 1	15 1.03	-20 47.4	1.556	2.557	3.4	19.9
5 11	14 51.35	-11 5.1	1.917	2.920	2.9	19.2	5 11	14 51.63	-20 10.4	1.534	2.541	2.1	19.8
5 21	14 41.74	-11 7.8	1.950	2.926	6.5	19.5	5 21	14 42.55	-19 28.7	1.538	2.525	6.5	20.0
5 31	14 33.49	-11 17.2	2.011	2.931	10.1	19.7	5 31	14 34.90	-18 48.0	1.567	2.509	10.8	20.3
6 10	14 27.22	-11 34.7	2.094	2.936	13.1	19.9	6 10	14 29.52	-18 13.8	1.618	2.493	14.7	20.5
318668	2005 <i>OH</i> ₁₃		5 6.7 272°06	20.4/ 13.9	18		37379	2001 <i>VP</i> ₉₂		5 6.7 198°11	4.0/ 2.8	18	
4 1	15 38.71	-49 31.1	1.159	1.886	26.8	20.4	4 1	15 17.39	- 5 15.0	2.698	3.534	10.2	20.2
4 11	15 34.57	-52 36.5	1.093	1.882	24.9	20.2	4 11	15 12.82	- 4 19.6	2.618	3.531	7.8	20.0
4 21	15 23.98	-55 14.7	1.041	1.878	22.9	20.0	4 21	15 6.81	- 3 24.2	2.564	3.528	5.5	19.8
5 1	15 7.21	-57 7.5	1.004	1.874	21.3	19.9	5 1	14 59.85	- 2 32.7	2.538	3.524	4.0	19.7
5 11	14 46.61	-57 59.3	0.983	1.870	20.5	19.8	5 11	14 52.56	- 1 48.9	2.541	3.520	4.7	19.8
5 21	14 26.22	-57 45.2	0.979	1.867	20.7	19.8	5 21	14 45.56	- 1 16.0	2.572	3.516	7.0	19.9
5 31	14 10.24	-56 34.2	0.990	1.863	21.9	19.9	5 31	14 39.46	- 0 56.1	2.628	3.511	9.4	20.0
6 10	14 1.12	-54 46.7	1.016	1.859	23.8	20.0	6 10	14 34.71	- 0 50.0	2.708	3.506	11.7	20.2
201588	2003 <i>SS</i> ₁₁₉		5 6.7 144°63	2.7/ 8.9	17		427775	2004 <i>XN</i> ₁₄₁		5 6.8 124°81	7.4/ 1.1	17	
4 1	15 22.35	-26 23.0	2.321	3.118	12.9	21.2	4 1	15 21.57	+ 5 20.1	2.276	3.101	12.2	21.3
4 11	15 16.95	-26 26.8	2.240	3.126	10.2	21.0	4 11	15 16.04	+ 6 14.2	2.223	3.114	10.0	21.1
4 21	15 9.59	-26 18.3	2.181	3.133	7.1	20.8	4 21	15 8.84	+ 6 59.5	2.194	3.127	8.1	21.1
5 1	15 0.89	-25 57.5	2.149	3.140	4.0	20.6	5 1	15 0.58	+ 7 31.0	2.191	3.140	7.4	21.0
5 11	14 51.75	-25 25.9	2.145	3.147	2.9	20.5	5 11	14 52.06	+ 7 44.9	2.214	3.153	8.1	21.1
5 21	14 43.05	-24 46.8	2.170	3.153	5.2	20.7	5 21	14 44.05	+ 7 39.4	2.264	3.165	9.9	21.2
5 31	14 35.61	-24 4.7	2.222	3.159	8.3	20.9	5 31	14 37.21	+ 7 14.8	2.337	3.176	12.0	21.4
6 10	14 30.04	-23 24.4	2.298	3.165	11.2	21.1	6 10	14 32.05	+ 6 33.0	2.431	3.187	14.0	21.5
187997	2001 <i>SC</i> ₁₆₁		5 6.7 184°81	3.5/ 3.7	17		178179	2006 <i>UJ</i> ₉₈		5 6.8 293°17	1.9/ 5.3	17	
4 1	15 20.12	-10 15.3	2.091	2.931	12.5	21.1	4 1	15 18.06	-13 0.1	2.148	2.988	12.3	21.2
4 11	15 15.26	- 9 2.9	2.014	2.932	9.5	20.9	4 11	15 13.80	-12 30.9	2.063	2.982	9.3	21.0
4 21	15 8.51	- 7 45.6	1.961	2.931	6.2	20.7	4 21	15 7.65	-11 56.8	2.001	2.975	5.9	20.7
5 1	15 0.49	- 6 28.5	1.935	2.931	3.7	20.5	5 1	15 0.22	-11 20.7	1.966	2.968	2.5	20.5
5 11	14 52.06	- 5 17.6	1.938	2.929	4.6	20.6	5 11	14 52.30	-10 46.5	1.959	2.962	2.9	20.5
5 21	14 44.06	- 4 17.9	1.969	2.928	7.7	20.8	5 21	14 44.72	-10 17.7	1.980	2.955	6.4	20.7
5 31	14 37.28	- 3 33.5	2.025	2.925	11.0	20.9	5 31	14 38.27	- 9 57.6	2.026	2.949	9.8	20.9
6 10	14 32.29	- 3 6.4	2.104	2.922	13.9	21.1	6 10	14 33.54	- 9 48.6	2.095	2.943	12.9	21.1
144964	2005 <i>EC</i> ₈₀		5 6.7 315°04	3.3/ 8.2	17		374180	2004 <i>XZ</i> ₁₀₇		5 6.8 120°06	0.8/ 6.2	17	
4 1	15 22.94	-22 58.6	1.375	2.214	17.9	19.8	4 1	15 22.99	-15 0.7	2.258	3.084	12.3	21.4
4 11	15 18.92	-23 35.1	1.289	2.201	14.2	19.6	4 11	15 17.26	-14 52.1	2.189	3.099	9.2	21.3
4 21	15 11.66	-23 59.5	1.223	2.189	9.8	19.3	4 21	15 9.69	-14 38.7	2.144	3.114	5.8	21.1
5 1	15 1.89	-24 9.8	1.180	2.177	5.2	19.0	5 1	15 0.93	-14 22.1	2.126	3.129	2.1	20.9
5 11	14 50.92	-24 5.9	1.161	2.165	3.7	18.9	5 11	14 51.82	-14 4.9	2.137	3.143	2.0	20.9
5 21	14 40.33	-23 50.9	1.166	2.154	7.9	19.1	5 21	14 43.19	-13 49.8	2.177	3.157	5.6	21.1
5 31	14 31.64	-23 30.7	1.194	2.144	12.8	19.3	5 31	14 35.80	-13 39.6	2.244	3.170	8.9	21.4
6 10	14 25.95	-23 12.1	1.243	2.134	17.2	19.5	6 10	14 30.19	-13 36.6	2.336	3.183	11.8	21.6
459516	2013 <i>ER</i> ₆₂		5 6.7 275°23	4.2/ 8.7	17		503137	2015 <i>GE</i> ₁₄		5 6.8 114°73	2.5/ 5.1	17	
4 1	15 25.07	-25 37.3	1.440	2.265	18.0	21.5	4 1	15 20.51	-10 48.7	2.005	2.846	13.0	21.2
4 11	15 20.54	-26 10.1	1.349	2.251	14.4	21.2	4 11	15 15.69	-10 27.7	1.929	2.848	9.8	21.0
4 21	15 12.70	-26 28.3	1.279	2.237	10.2	20.9	4 21	15 8.86	-10 4.1	1.876	2.849	6.3	20.8
5 1	15 2.28	-26 29.0	1.231	2.224	6.0	20.7	5 1	15 0.67	- 9 40.9	1.850	2.850	3.0	20.6
5 11	14 50.63	-26 11.8	1.208	2.210	4.4	20.5	5 11	14 52.00	- 9 21.5	1.851	2.851	3.5	20.6
5 21	14 39.32	-25 40.3	1.209	2.196	8.0	20.7	5 21	14 43.75	- 9 9.2	1.879	2.852	6.9	20.9
5 31	14 29.93	-25 1.1	1.235	2.182	12.7	20.9	5 31	14 36.77	- 9 6.5	1.933	2.853	10.4	21.1
6 10	14 23.56	-24 22.8	1.281	2.167	17.1	21.1	6 10	14 31.68	- 9 14.8	2.010	2.854	13.5	21.3
351052	2003 <i>SU</i> ₂₅₄		5 6.7 194°69	0.8/ 6.1	18		57612	2001 <i>TY</i> ₁₁₆		5 6.			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
292231	2006 SE ₆₂		5 6.8 230°39	2.1/ 4.8	18		162033	1995 WR ₃₇		5 6.8 215°13	3.1/ 4.4	18	
4 1	15 18.70	-11 2.8	2.758	3.588	10.2	21.9	4 1	15 19.86	-7 3.5	2.496	3.330	11.0	20.6
4 11	15 13.89	-10 29.2	2.662	3.575	7.7	21.7	4 11	15 14.85	-6 43.7	2.413	3.326	8.4	20.4
4 21	15 7.55	-9 52.4	2.592	3.562	4.9	21.5	4 21	15 8.20	-6 24.2	2.355	3.322	5.6	20.2
5 1	15 0.17	-9 15.1	2.549	3.548	2.5	21.4	5 1	15 0.44	-6 7.7	2.324	3.318	3.4	20.1
5 11	14 52.37	-8 40.3	2.536	3.534	3.0	21.4	5 11	14 52.27	-5 57.2	2.322	3.314	3.9	20.1
5 21	14 44.80	-8 11.1	2.552	3.520	5.7	21.5	5 21	14 44.40	-5 54.7	2.348	3.309	6.5	20.2
5 31	14 38.11	-7 50.0	2.596	3.505	8.5	21.7	5 31	14 37.52	-6 2.1	2.400	3.305	9.3	20.4
6 10	14 32.78	-7 38.8	2.663	3.489	11.1	21.8	6 10	14 32.16	-6 19.9	2.477	3.300	11.9	20.6
486039	2012 TQ ₁₂₄		5 6.8 320°30	2.5/ 9.8	18		270393	2002 AP ₁₅₆		5 6.8 118°77	1.4/ 5.7	17	
4 1	15 13.52	-29 7.7	3.869	4.645	8.5	21.2	4 1	15 22.06	-14 58.4	2.073	2.905	13.0	21.8
4 11	15 9.74	-29 12.6	3.766	4.635	6.8	21.0	4 11	15 16.68	-14 22.8	2.007	2.921	9.7	21.6
4 21	15 4.82	-29 9.1	3.687	4.625	5.0	20.9	4 21	15 9.38	-13 41.0	1.965	2.937	6.1	21.4
5 1	14 59.13	-28 57.1	3.635	4.615	3.3	20.7	5 1	15 0.86	-12 55.9	1.949	2.952	2.4	21.2
5 11	14 53.14	-28 37.4	3.612	4.606	2.5	20.7	5 11	14 52.00	-12 11.6	1.962	2.967	2.5	21.2
5 21	14 47.31	-28 11.6	3.617	4.596	3.6	20.7	5 21	14 43.70	-11 32.2	2.004	2.981	6.2	21.5
5 31	14 42.12	-27 41.9	3.651	4.587	5.5	20.9	5 31	14 36.72	-11 1.5	2.071	2.994	9.7	21.7
6 10	14 37.97	-27 11.1	3.711	4.577	7.4	21.0	6 10	14 31.61	-10 41.9	2.162	3.007	12.7	21.9
200291	2000 AW ₁₀₈		5 6.8 109°43	3.6/ 9.8	17		132765	2002 PA ₈₁		5 6.8 262°08	0.7/ 7.3	18	
4 1	15 21.84	-29 57.2	2.166	2.955	13.9	20.4	4 1	15 21.12	-19 50.6	2.203	3.023	12.7	20.4
4 11	15 16.69	-29 47.9	2.091	2.968	11.2	20.3	4 11	15 16.29	-19 45.8	2.101	3.006	9.8	20.1
4 21	15 9.46	-29 22.5	2.037	2.981	8.0	20.1	4 21	15 9.38	-19 32.3	2.022	2.989	6.4	19.9
5 1	15 0.87	-28 40.9	2.009	2.994	5.0	19.9	5 1	15 0.96	-19 10.9	1.969	2.971	2.6	19.6
5 11	14 51.90	-27 45.5	2.008	3.006	3.7	19.8	5 11	14 51.85	-18 43.6	1.945	2.953	1.7	19.5
5 21	14 43.48	-26 40.8	2.035	3.018	5.6	20.0	5 21	14 42.99	-18 13.8	1.949	2.934	5.6	19.7
5 31	14 36.48	-25 32.7	2.090	3.030	8.6	20.2	5 31	14 35.27	-17 45.3	1.980	2.916	9.3	19.9
6 10	14 31.49	-24 27.3	2.168	3.041	11.6	20.4	6 10	14 29.38	-17 22.3	2.035	2.897	12.7	20.1
228542	2001 WS ₁₈		5 6.8 178°53	0.6/ 7.2	17		308492	2005 TX ₁₀₆		5 6.8 165°28	0.5/ 6.3	18	
4 1	15 22.49	-20 29.6	2.366	3.178	12.2	22.4	4 1	15 18.22	-16 20.9	2.818	3.640	10.2	21.9
4 11	15 16.97	-20 9.3	2.279	3.181	9.3	22.2	4 11	15 13.46	-16 2.6	2.735	3.643	7.7	21.7
4 21	15 9.58	-19 39.5	2.217	3.182	6.0	22.0	4 21	15 7.24	-15 39.1	2.676	3.646	4.8	21.6
5 1	15 0.93	-19 1.7	2.181	3.183	2.4	21.8	5 1	15 0.07	-15 11.9	2.646	3.649	1.8	21.3
5 11	14 51.84	-18 18.7	2.175	3.183	1.5	21.7	5 11	14 52.56	-14 43.6	2.645	3.652	1.6	21.3
5 21	14 43.15	-17 34.1	2.199	3.182	5.2	22.0	5 21	14 45.36	-14 16.6	2.673	3.654	4.6	21.5
5 31	14 35.63	-16 52.3	2.250	3.181	8.6	22.2	5 31	14 39.07	-13 53.8	2.729	3.655	7.5	21.7
6 10	14 29.87	-16 17.0	2.325	3.179	11.6	22.4	6 10	14 34.14	-13 37.4	2.810	3.657	10.0	21.9
296448	2009 HE ₅₉		5 6.8 313°66	5.8/ 3.3	16		3674	Erbisbühl		5 6.8 210°31	8.5/ 14.1	18	
4 1	15 20.49	-0 45.8	2.012	2.853	12.9	20.1	4 1	15 31.47	-45 22.2	2.532	3.211	14.8	17.4
4 11	15 15.78	-0 23.5	1.925	2.836	10.2	19.8	4 11	15 24.48	-45 55.2	2.427	3.202	13.1	17.2
4 21	15 9.01	-0 6.6	1.861	2.820	7.6	19.6	4 21	15 14.73	-46 7.5	2.341	3.192	11.2	17.1
5 1	15 0.78	+0 0.5	1.823	2.804	5.9	19.5	5 1	15 2.97	-45 54.2	2.277	3.181	9.5	16.9
5 11	14 51.94	-0 0.9	1.812	2.789	6.6	19.5	5 11	14 50.39	-45 13.5	2.239	3.168	8.5	16.8
5 21	14 43.39	-0 28.0	1.827	2.773	9.2	19.6	5 21	14 38.28	-44 7.1	2.228	3.155	8.8	16.8
5 31	14 36.03	-1 6.5	1.867	2.758	12.2	19.8	5 31	14 27.84	-42 40.6	2.243	3.141	10.2	16.9
6 10	14 30.51	-2 0.4	1.928	2.744	15.1	20.0	6 10	14 19.92	-41 2.5	2.282	3.125	12.2	17.0
351496	2005 QR ₁₅₃		5 6.8 221°81	0.8/ 7.3	17		361130	2006 GJ ₂₃		5 6.8 334°49	3.0/ 5.0	17	
4 1	15 20.51	-19 35.8	2.563	3.377	11.3	21.0	4 1	15 18.13	-13 51.7	1.227	2.096	17.7	20.7
4 11	15 15.44	-19 41.4	2.470	3.372	8.7	20.8	4 11	15 15.12	-12 59.8	1.154	2.088	13.4	20.4
4 21	15 8.63	-19 40.3	2.402	3.367	5.6	20.6	4 21	15 9.11	-11 57.2	1.101	2.081	8.6	20.1
5 1	15 0.60	-19 32.9	2.361	3.362	2.3	20.4	5 1	15 0.94	-10 49.7	1.071	2.074	3.8	19.8
5 11	14 52.09	-19 20.9	2.349	3.356	1.5	20.3	5 11	14 51.91	-9 45.3	1.064	2.067	4.6	19.8
5 21	14 43.85	-19 6.4	2.365	3.350	4.8	20.5	5 21	14 43.47	-8 52.1	1.081	2.062	9.7	20.1
5 31	14 36.61	-18 52.3	2.410	3.344	8.0	20.7	5 31	14 36.93	-8 16.8	1.120	2.057	14.7	20.3
6 10	14 30.95	-18 41.6	2.479	3.337	10.8	20.9	6 10	14 33.17	-8 2.8	1.177	2.053	19.0	20.6
360366	2002 AA ₁₀₇		5 6.8 66°49	2.9/ 5.3	18		200447	2000 WD ₉		5 6.8 84°95	18.4/ 3.3	17	
4 1	15 24.39	-11 58.7	1.299	2.157	17.6	21.2	4 1	15 37.21	+20 36.9	1.079	1.885	23.9	20.0
4 11	15 19.32	-11 29.2	1.248	2.176	13.3	20.9	4 11	15 29.48	+21 28.0	1.041	1.896	21.4	19.8
4 21	15 11.40	-10 54.9	1.218	2.194	8.4	20.7	4 21	15 17.98	+21 42.9	1.018	1.906	19.4	19.7
5 1	15 1.63	-10 20.4	1.211	2.213	3.8	20.5	5 1	15 4.08	+21 9.7	1.013	1.916	18.4	19.7
5 11	14 51.42	-9 51.4	1.229	2.231	4.3	20.6	5 11	14 49.77	+19 43.5	1.028	1.927	18.8	19.7
5 21	14 42.12	-9 32.7	1.272	2.250	8.8	20.9	5 21	14 36.92	+17 28.8	1.062	1.937	20.4	19.9
5 31	14 34.87	-9 27.6	1.338	2.269	13.2	21.2	5 31	14 26.98	+14 36.7	1.115	1.947	22.7	20.1
6 10	14 30.34	-9 37.6	1.423	2.287	17.0	21.5	6 10	14 20.67	+11 21.1	1.184	1.957	25.0	20.3
502854	2015 DU ₁₇₉		5 6.8 128°65	0.7/ 7.4	17		299891	2006 SN ₃₄₅		5 6.8 96°52	1.6/ 8.1	17	
4 1	15 20.11	-22 15.9	1.923	2.748	14.1	21.4	4 1	15 19.64	-23 2.8	2.263	3.077	12.6	21.4
4 11	15 15.54	-21 35.3	1.845	2.752	10.8	21.2	4 11	15 14.96	-22 57.9	2.182	3.082	9.8	21.2
4 21	15 8.82	-20 41.1	1.789	2.757	7.0	21.0	4 21	15 8.38	-22 42.5	2.125	3.087	6.5	21.0
5 1	15 0.67	-19 35.6	1.760	2.761	2.9	20.7	5 1	15 0.54	-22 17.4	2.094	3.092	3.1	20.8
5 11	14 52.08	-18 23.4	1.758	2.765	1.8	20.7	5 11	14 52.25	-21 44.6	2.091	3.097	2.0	20.7
5 21	14 44.02	-17 10.3	1.784	2.770	5.9	20.9	5 21	14 44.38	-21 7.7	2.116	3.102	5.1	20.9
5 31	14 37.37	-16 2.6	1.836	2.773	9.8	21.2	5 31	14 37.70	-20 30.9	2.168	3.107	8.4	21.1
6 10	14 32.76	-15 5.6	1.911	2.777	13.2	21.4	6 10	14 32.80	-19 58.2	2.244	3.112	11.4	21.3
353103	2009 EK ₂₂		5 6.8 163°61	3.0/ 3.9	17		168904	2000 WY ₁₈₉		5 6.8 191°14	0.7/ 7.2	16	
4 1	15 17.54	-9 54.7	2.400	3.239	11.2	21.9	4 1	15 25.25					

EPHEMERIDES

5 6.8

5 6.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
178527	1999 <i>TN</i> ₂₆₀		5 6.8 267°88	0°4/ 6.9	18		29196	Dius		5 6.8 113°03	0°3/ 6.3	18	
4 1	15 23.16	-19 4.7	1.706	2.539	15.2	20.9	4 1	15 11.70	-15 53.0	4.545	5.364	6.6	19.3
4 11	15 18.48	-18 54.4	1.606	2.519	11.8	20.7	4 11	15 8.12	-15 39.9	4.460	5.367	5.0	19.2
4 21	15 11.11	-18 33.4	1.529	2.499	7.7	20.4	4 21	15 3.71	-15 23.8	4.401	5.370	3.1	19.1
5 1	15 1.70	-18 2.7	1.476	2.478	3.0	20.0	5 1	14 58.77	-15 5.8	4.371	5.374	1.1	18.9
5 11	14 51.33	-17 25.2	1.449	2.457	2.1	19.9	5 11	14 53.65	-14 47.4	4.371	5.377	1.0	18.9
5 21	14 41.21	-16 45.5	1.450	2.435	7.0	20.2	5 21	14 48.70	-14 29.9	4.401	5.381	3.0	19.1
5 31	14 32.58	-16 9.5	1.475	2.413	11.7	20.4	5 31	14 44.24	-14 14.7	4.459	5.384	4.9	19.2
6 10	14 26.33	-15 42.3	1.522	2.391	15.8	20.6	6 10	14 40.56	-14 3.2	4.544	5.387	6.5	19.3
395606	2011 <i>UB</i> ₃₃₈		5 6.8 137°18	0°2/ 6.6	17		434056	2001 <i>UK</i> ₆₇		5 6.8 248°32	2°2/ 4.9	17	
4 1	15 17.56	-18 37.3	2.504	3.328	11.2	21.4	4 1	15 17.74	-12 55.2	2.351	3.188	11.5	22.0
4 11	15 13.13	-18 0.8	2.423	3.332	8.5	21.2	4 11	15 13.44	-12 5.1	2.261	3.178	8.6	21.8
4 21	15 7.11	-17 16.3	2.367	3.337	5.4	21.0	4 21	15 7.42	-11 9.2	2.195	3.167	5.5	21.6
5 1	15 0.04	-16 25.8	2.338	3.341	2.0	20.8	5 1	15 0.23	-10 11.0	2.156	3.157	2.6	21.3
5 11	14 52.64	-15 33.0	2.338	3.345	1.6	20.8	5 11	14 52.58	-9 14.8	2.146	3.146	3.1	21.4
5 21	14 45.61	-14 41.6	2.367	3.349	5.0	21.0	5 21	14 45.23	-8 24.8	2.164	3.135	6.3	21.5
5 31	14 39.61	-13 55.5	2.423	3.353	8.1	21.2	5 31	14 38.91	-7 44.9	2.209	3.124	9.6	21.7
6 10	14 35.13	-13 17.9	2.504	3.356	10.9	21.4	6 10	14 34.16	-7 17.7	2.277	3.112	12.4	21.9
508266	2015 <i>HO</i> ₁₆₄		5 6.8 163°68	0°7/ 6.3	17		278682	2008 <i>RP</i> ₁₀₇		5 6.8 203°47	1°8/ 5.4	17	
4 1	15 19.90	-15 54.5	2.067	2.901	12.9	21.4	4 1	15 20.71	-13 8.7	2.182	3.016	12.3	21.7
4 11	15 15.27	-15 38.9	1.986	2.901	9.8	21.2	4 11	15 15.77	-12 37.0	2.098	3.013	9.3	21.5
4 21	15 8.65	-15 16.8	1.929	2.902	6.2	21.0	4 21	15 8.94	-12 0.2	2.037	3.009	5.9	21.3
5 1	15 0.66	-14 50.4	1.898	2.902	2.3	20.8	5 1	15 0.80	-11 21.2	2.004	3.005	2.5	21.1
5 11	14 52.19	-14 22.8	1.895	2.902	2.1	20.7	5 11	14 52.17	-10 43.9	1.999	3.001	2.9	21.1
5 21	14 44.11	-13 57.4	1.920	2.902	6.0	21.0	5 21	14 43.91	-10 11.9	2.022	2.996	6.4	21.3
5 31	14 37.27	-13 37.8	1.970	2.902	9.6	21.2	5 31	14 36.82	-9 48.6	2.071	2.991	9.8	21.5
6 10	14 32.28	-13 26.8	2.044	2.902	12.8	21.4	6 10	14 31.49	-9 36.4	2.144	2.986	12.9	21.7
173957	2001 <i>XQ</i> ₁₄		5 6.8 189°14	3°1/ 9.4	18		418099	2007 <i>WS</i> ₆₀		5 6.8 206°70	0°9/ 7.4	17	
4 1	15 20.83	-28 3.1	2.658	3.443	11.7	20.7	4 1	15 25.00	-20 23.4	1.873	2.695	14.5	21.7
4 11	15 15.72	-28 12.1	2.566	3.443	9.4	20.6	4 11	15 19.50	-20 18.7	1.784	2.690	11.2	21.5
4 21	15 8.83	-28 9.7	2.497	3.441	6.7	20.4	4 21	15 11.54	-20 3.6	1.718	2.685	7.3	21.3
5 1	15 0.72	-27 55.2	2.455	3.440	4.2	20.2	5 1	15 1.83	-19 38.7	1.678	2.679	3.1	21.0
5 11	14 52.14	-27 29.8	2.441	3.438	3.1	20.1	5 11	14 51.40	-19 6.6	1.665	2.672	1.9	20.9
5 21	14 43.87	-26 56.0	2.455	3.436	4.9	20.2	5 21	14 41.38	-18 31.1	1.680	2.665	6.3	21.1
5 31	14 36.67	-26 17.5	2.498	3.434	7.6	20.4	5 31	14 32.84	-17 57.5	1.721	2.658	10.4	21.4
6 10	14 31.11	-25 38.7	2.565	3.431	10.2	20.6	6 10	14 26.54	-17 30.5	1.785	2.649	14.1	21.6
401813	1994 <i>RB</i> ₅		5 6.8 193°32	2°8/ 8.2	16		138820	2000 <i>UN</i> ₂₂		5 6.8 153°04	1°1/ 5.9	18	
4 1	15 27.46	-23 25.0	1.676	2.493	16.2	22.0	4 1	15 19.66	-13 35.7	2.769	3.593	10.3	20.7
4 11	15 21.72	-23 48.3	1.592	2.492	12.7	21.7	4 11	15 14.55	-13 23.8	2.689	3.599	7.7	20.6
4 21	15 13.12	-23 59.4	1.530	2.490	8.7	21.5	4 21	15 7.96	-13 8.5	2.634	3.605	4.9	20.4
5 1	15 2.43	-23 57.1	1.492	2.488	4.5	21.2	5 1	15 0.39	-12 51.5	2.608	3.610	1.9	20.2
5 11	14 50.87	-23 42.2	1.481	2.485	3.1	21.1	5 11	14 52.49	-12 35.1	2.611	3.615	2.0	20.2
5 21	14 39.79	-23 18.0	1.496	2.482	6.8	21.4	5 21	14 44.90	-12 21.4	2.643	3.620	4.9	20.4
5 31	14 30.45	-22 50.0	1.538	2.478	11.1	21.6	5 31	14 38.25	-12 12.7	2.703	3.624	7.8	20.6
6 10	14 23.75	-22 24.4	1.601	2.474	15.0	21.8	6 10	14 33.00	-12 10.7	2.788	3.628	10.3	20.8
308116	2004 <i>XG</i> ₅₂		5 6.8 168°76	1°4/ 7.7	16		224341	2005 <i>UV</i> ₇₆		5 6.8 215°43	5°5/ 2.0	17	
4 1	15 23.57	-23 2.5	1.675	2.499	15.9	20.9	4 1	15 20.11	-4 0.7	2.144	2.985	12.3	21.7
4 11	15 18.56	-22 37.9	1.596	2.502	12.3	20.6	4 11	15 15.31	-2 42.9	2.064	2.977	9.6	21.5
4 21	15 10.96	-21 58.1	1.539	2.504	8.1	20.4	4 21	15 8.63	-1 24.7	2.009	2.970	6.9	21.3
5 1	15 1.57	-21 4.4	1.506	2.506	3.6	20.1	5 1	15 0.68	-0 12.0	1.981	2.961	5.5	21.2
5 11	14 51.57	-20 0.9	1.500	2.508	2.1	20.0	5 11	14 52.26	+ 0 49.2	1.980	2.952	6.5	21.2
5 21	14 42.16	-18 53.8	1.522	2.509	6.6	20.3	5 21	14 44.20	+ 1 34.4	2.007	2.943	9.1	21.4
5 31	14 34.43	-17 50.4	1.569	2.509	10.9	20.6	5 31	14 37.28	+ 2 0.7	2.058	2.933	12.0	21.5
6 10	14 29.14	-16 56.7	1.638	2.510	14.7	20.8	6 10	14 32.09	+ 2 7.5	2.130	2.922	14.6	21.7
417511	2006 <i>SL</i> ₂₆₇		5 6.8 104°35	1°0/ 7.5	17		495753	2016 <i>FY</i> ₄₃		5 6.8 247°63	4°7/ 2.9	18	
4 1	15 21.74	-22 10.2	1.663	2.494	15.7	21.2	4 1	15 21.16	-8 42.1	1.879	2.724	13.6	21.6
4 11	15 17.09	-21 39.5	1.591	2.501	12.1	21.0	4 11	15 16.49	-7 17.0	1.787	2.706	10.4	21.4
4 21	15 9.97	-20 54.2	1.540	2.508	7.9	20.8	4 21	15 9.60	-5 45.5	1.719	2.688	7.1	21.1
5 1	15 1.18	-19 56.5	1.513	2.515	3.3	20.5	5 1	15 1.10	-4 14.0	1.677	2.669	4.8	21.0
5 11	14 51.87	-18 51.0	1.514	2.522	2.0	20.4	5 11	14 51.93	-2 49.8	1.664	2.650	6.0	21.0
5 21	14 43.19	-17 44.1	1.541	2.528	6.5	20.7	5 21	14 43.09	-1 39.8	1.677	2.629	9.4	21.1
5 31	14 36.17	-16 42.6	1.594	2.535	10.8	21.0	5 31	14 35.53	-0 49.1	1.715	2.609	13.0	21.3
6 10	14 31.48	-15 52.2	1.669	2.542	14.5	21.3	6 10	14 29.97	-0 20.2	1.774	2.587	16.3	21.5
471677	2012 <i>TM</i> ₁₈₆		5 6.8 106°38	0°0/ 6.5	17		390779	2003 <i>WY</i> ₆		5 6.8 241°26	1°8/ 5.1	18	R
4 1	15 21.38	-16 48.1	2.226	3.052	12.4	21.2	4 1	15 19.98	-13 15.0	2.612	3.439	10.7	21.9
4 11	15 16.24	-16 50.7	2.148	3.058	9.4	21.0	4 11	15 15.02	-12 29.8	2.508	3.420	8.1	21.7
4 21	15 9.20	-16 47.5	2.093	3.063	6.0	20.8	4 21	15 8.40	-11 38.8	2.429	3.400	5.2	21.5
5 1	15 0.88	-16 39.7	2.066	3.069	2.2	20.6	5 1	15 0.61	-10 44.9	2.379	3.380	2.3	21.3
5 11	14 52.09	-16 29.3	2.067	3.074	1.6	20.5	5 11	14 52.31	-9 51.7	2.358	3.359	2.8	21.3
5 21	14 43.71	-16 18.8	2.096	3.080	5.4	20.8	5 21	14 44.24	-9 3.2	2.367	3.337	5.9	21.5
5 31	14 36.52	-16 11.3	2.152	3.085	8.8	21.0	5 31	14 37.08	-8 23.1	2.403	3.314	9.0	21.6
6 10	14 31.11	-16 9.1	2.232	3.090	11.9	21.2	6 10	14 31.41	-7 53.8	2.463	3.291	11.8	21.8
462567	2009 <i>DW</i> ₆₉		5 6.8 163°95	2°9/ 4.8	16		384971	2012 <i>TK</i> ₁₅₉		5 6.8 122°72	0°5/ 6.4	17	
4 1	15												

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
376018	2010 AD ₆₈		5 6.8 227°75	1°6/ 5.6 17			336375	2008 US ₅₄		5 6.8 208°07	1°4/ 5.9 18		
4 1	15 22.65	-13 38.0	2.287	3.115	12.1	23.0	4 1	15 21.27	-13 45.1	2.134	2.968	12.6	21.3
4 11	15 17.27	-13 11.5	2.190	3.102	9.2	22.8	4 11	15 16.28	-13 29.9	2.050	2.965	9.5	21.0
4 21	15 9.93	-12 39.6	2.117	3.088	5.8	22.5	4 21	15 9.31	-13 10.0	1.990	2.962	6.0	20.8
5 1	15 1.20	-12 4.8	2.071	3.073	2.4	22.3	5 1	15 0.98	-12 47.7	1.957	2.959	2.4	20.6
5 11	14 51.89	-11 30.5	2.055	3.058	2.6	22.3	5 11	14 52.13	-12 25.9	1.951	2.956	2.5	20.6
5 21	14 42.84	-11 0.1	2.067	3.042	6.2	22.5	5 21	14 43.64	-12 7.9	1.974	2.952	6.2	20.8
5 31	14 34.90	-10 37.1	2.106	3.025	9.7	22.7	5 31	14 36.36	-11 56.7	2.023	2.949	9.7	21.0
6 10	14 28.71	-10 24.3	2.169	3.007	12.9	22.8	6 10	14 30.89	-11 54.6	2.095	2.945	12.9	21.2
266380	2007 ED ₁₁₃		5 6.8 14°86	5°0/ 3.6 17			457260	2008 RY ₂₄		5 6.8 158°49	1°7/ 8.1 18		
4 1	15 17.09	-9 8.9	1.364	2.233	16.3	20.3	4 1	15 28.04	-24 11.8	2.377	3.168	12.8	22.9
4 11	15 13.85	-7 58.2	1.304	2.236	12.3	20.1	4 11	15 21.14	-23 56.1	2.295	3.181	9.9	22.8
4 21	15 8.05	-6 43.2	1.264	2.240	8.2	19.8	4 21	15 12.24	-23 28.6	2.236	3.192	6.6	22.6
5 1	15 0.51	-5 31.6	1.249	2.245	5.2	19.7	5 1	15 2.02	-22 49.6	2.206	3.202	3.2	22.4
5 11	14 52.44	-4 31.3	1.257	2.250	6.3	19.7	5 11	14 51.41	-22 1.9	2.206	3.211	2.0	22.3
5 21	14 45.01	-3 48.7	1.290	2.256	10.1	20.0	5 21	14 41.31	-21 9.2	2.235	3.219	5.1	22.5
5 31	14 39.29	-3 27.8	1.345	2.263	14.1	20.2	5 31	14 32.56	-20 16.6	2.294	3.225	8.5	22.7
6 10	14 35.95	-3 29.2	1.419	2.271	17.7	20.5	6 10	14 25.75	-19 28.8	2.378	3.230	11.4	22.9
325847	2010 TQ ₃₅		5 6.8 105°47	0°7/ 6.4 17			30372	Halback		5 6.8 292°45	1°2/ 6.1 18		
4 1	15 24.62	-16 19.1	1.754	2.588	14.8	21.5	4 1	15 21.15	-15 7.2	1.640	2.486	15.1	19.0
4 11	15 19.00	-16 3.0	1.690	2.604	11.2	21.3	4 11	15 16.89	-14 51.2	1.552	2.473	11.6	18.7
4 21	15 11.05	-15 39.3	1.649	2.621	7.1	21.1	4 21	15 10.06	-14 27.8	1.485	2.460	7.4	18.4
5 1	15 1.58	-15 10.5	1.633	2.636	2.6	20.8	5 1	15 1.36	-13 59.5	1.444	2.447	2.8	18.1
5 11	14 51.68	-14 40.1	1.645	2.652	2.2	20.9	5 11	14 51.83	-13 30.2	1.428	2.435	2.7	18.1
5 21	14 42.45	-14 12.2	1.685	2.667	6.6	21.2	5 21	14 42.67	-13 4.4	1.439	2.422	7.4	18.3
5 31	14 34.82	-13 51.1	1.750	2.682	10.6	21.4	5 31	14 35.01	-12 46.7	1.474	2.410	11.9	18.6
6 10	14 29.45	-13 39.8	1.837	2.696	14.0	21.7	6 10	14 29.68	-12 40.5	1.530	2.397	15.9	18.8
410187	2007 RK ₁₀₃		5 6.8 284°65	2°5/ 5.3 17			496009	2007 YD ₆₉		5 6.8 233°75	1°7/ 5.8 17		
4 1	15 20.57	-14 33.4	1.428	2.284	16.4	20.4	4 1	15 24.80	-13 49.4	1.911	2.743	13.9	22.5
4 11	15 16.79	-13 43.8	1.340	2.267	12.6	20.1	4 11	15 19.32	-13 27.5	1.816	2.730	10.6	22.2
4 21	15 10.17	-12 43.1	1.273	2.250	8.0	19.7	4 21	15 11.46	-12 59.6	1.743	2.715	6.7	22.0
5 1	15 1.42	-11 35.8	1.230	2.233	3.4	19.4	5 1	15 1.85	-12 28.1	1.697	2.700	2.7	21.7
5 11	14 51.72	-10 28.6	1.212	2.215	4.0	19.4	5 11	14 51.48	-11 56.6	1.679	2.683	2.9	21.7
5 21	14 42.41	-9 29.2	1.219	2.198	9.0	19.6	5 21	14 41.40	-11 29.4	1.689	2.666	7.1	21.9
5 31	14 34.77	-8 44.6	1.249	2.180	13.9	19.9	5 31	14 32.67	-11 10.5	1.725	2.649	11.2	22.1
6 10	14 29.73	-8 19.2	1.298	2.163	18.3	20.1	6 10	14 26.07	-11 2.8	1.783	2.630	14.8	22.3
219604	2001 TB ₈₅		5 6.8 173°09	0°6/ 6.4 17			507321	2011 RM ₁₈		5 6.8 137°61	2°0/ 4.8 17		
4 1	15 21.90	-17 29.6	2.217	3.041	12.5	21.7	4 1	15 17.62	-11 50.1	2.758	3.589	10.1	22.6
4 11	15 16.63	-16 56.3	2.135	3.044	9.5	21.5	4 11	15 12.98	-11 5.9	2.685	3.599	7.6	22.5
4 21	15 9.45	-16 14.7	2.077	3.047	6.0	21.3	4 21	15 6.95	-10 18.3	2.638	3.609	4.8	22.3
5 1	15 0.99	-15 27.1	2.046	3.049	2.2	21.0	5 1	15 0.04	-9 30.3	2.618	3.618	2.4	22.1
5 11	14 52.10	-14 37.4	2.044	3.050	1.9	21.0	5 11	14 52.85	-8 45.4	2.628	3.626	2.8	22.2
5 21	14 43.64	-13 49.6	2.071	3.051	5.7	21.3	5 21	14 46.02	-8 6.5	2.667	3.635	5.5	22.4
5 31	14 36.40	-13 8.2	2.124	3.051	9.3	21.5	5 31	14 40.10	-7 36.3	2.733	3.643	8.1	22.6
6 10	14 30.95	-12 36.4	2.202	3.051	12.3	21.7	6 10	14 35.54	-7 16.6	2.823	3.650	10.5	22.7
343361	2010 CR ₈₁		5 6.8 260°09	2°0/ 8.2 17			462178	2007 TL ₃₆₃		5 6.8 180°92	0°8/ 6.3 16		
4 1	15 20.86	-23 26.8	2.039	2.856	13.7	20.8	4 1	15 24.99	-16 7.2	2.028	2.854	13.4	22.4
4 11	15 16.25	-23 25.3	1.948	2.848	10.7	20.6	4 11	15 19.17	-15 47.4	1.945	2.855	10.2	22.2
4 21	15 9.43	-23 12.2	1.878	2.840	7.2	20.4	4 21	15 11.17	-15 20.4	1.886	2.856	6.5	21.9
5 1	15 1.05	-22 47.4	1.835	2.832	3.6	20.1	5 1	15 1.68	-14 48.3	1.854	2.857	2.4	21.7
5 11	14 52.03	-22 13.2	1.818	2.824	2.3	20.0	5 11	14 51.64	-14 14.4	1.850	2.856	2.2	21.7
5 21	14 43.36	-21 33.2	1.829	2.816	5.7	20.2	5 21	14 42.05	-13 42.6	1.874	2.854	6.2	21.9
5 31	14 35.99	-20 52.3	1.867	2.808	9.5	20.4	5 31	14 33.82	-13 16.9	1.925	2.852	10.1	22.1
6 10	14 30.63	-20 15.6	1.927	2.799	12.9	20.6	6 10	14 27.62	-13 0.6	2.000	2.849	13.4	22.4
365164	2009 DD ₁₂₇		5 6.8 39°24	0°1/ 6.9 17			224964	2007 EG ₃₆		5 6.8 348°01	1°0/ 6.3 17		
4 1	15 21.19	-19 36.5	1.323	2.174	17.8	20.8	4 1	15 22.55	-14 8.6	1.564	2.412	15.7	19.8
4 11	15 17.22	-19 12.0	1.257	2.180	13.6	20.6	4 11	15 17.97	-14 16.9	1.487	2.409	11.9	19.6
4 21	15 10.32	-18 33.6	1.212	2.186	8.7	20.3	4 21	15 10.74	-14 20.7	1.431	2.406	7.6	19.3
5 1	15 1.40	-17 44.0	1.189	2.193	3.3	20.0	5 1	15 1.60	-14 21.4	1.400	2.403	2.9	19.0
5 11	14 51.82	-16 48.6	1.192	2.200	2.3	20.0	5 11	14 51.69	-14 21.8	1.395	2.401	2.5	19.0
5 21	14 42.99	-15 54.5	1.219	2.207	7.7	20.3	5 21	14 42.26	-14 24.7	1.415	2.400	7.3	19.3
5 31	14 36.11	-15 8.6	1.269	2.215	12.5	20.6	5 31	14 34.46	-14 33.2	1.460	2.398	11.8	19.5
6 10	14 31.97	-14 36.4	1.340	2.223	16.7	20.9	6 10	14 29.11	-14 50.0	1.526	2.398	15.7	19.8
346219	2007 YC ₅₆		5 6.8 92°31	4°9/ 3.1 17			212622	2006 TU ₂₁		5 6.8 230°96	0°2/ 6.6 18		
4 1	15 20.07	-2 19.0	2.314	3.150	11.6	20.5	4 1	15 19.75	-17 1.5	2.391	3.216	11.7	20.9
4 11	15 14.96	-1 41.8	2.257	3.166	9.0	20.4	4 11	15 14.99	-16 52.3	2.301	3.211	8.9	20.7
4 21	15 8.24	-1 8.3	2.223	3.182	6.5	20.2	4 21	15 8.44	-16 37.0	2.236	3.206	5.6	20.5
5 1	15 0.50	-0 42.3	2.216	3.197	4.9	20.2	5 1	15 0.65	-16 16.8	2.198	3.201	2.1	20.3
5 11	14 52.50	-0 27.1	2.237	3.213	5.6	20.2	5 11	14 52.39	-15 54.3	2.188	3.196	1.6	20.2
5 21	14 44.95	-0 25.0	2.286	3.228	7.8	20.4	5 21	14 44.43	-15 32.2	2.207	3.190	5.2	20.5
5 31	14 38.54	-0 36.8	2.359	3.243	10.3	20.6	5 31	14 37.52	-15 13.8	2.253	3.184	8.6	20.7
6 10	14 33.72	-1 1.9	2.455	3.258	12.6	20.8	6 10	14 32.25	-15 1.7	2.323	3.179	11.5	20.8
276966	2004 UE ₃		5 6.8 218°09	4°9/ 2.4 18			522472	2016 DO ₃₃		5 6.8 29°89	3°3/ 8.3 17		
4 1	15 19.73	-4 13.2	2.326	3.163	11.5	21.7	4 1	1					

EPHEMERIDES

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
465415	2008 <i>KK</i> ₁₈		5 6.8	42°15'	11.5°	2.0	17						
4 1	15 24.18	+ 8 45.2	1.346	2.189	18.0	20.3							
4 11	15 18.98	+ 9 38.5	1.307	2.205	15.1	20.1							
4 21	15 11.12	+10 13.6	1.288	2.221	12.6	20.0							
5 1	15 1.62	+10 22.4	1.290	2.238	11.5	20.0							
5 11	14 51.78	+10 0.3	1.314	2.255	12.3	20.1							
5 21	14 42.86	+ 9 7.4	1.361	2.273	14.4	20.3							
5 31	14 35.89	+ 7 47.5	1.429	2.291	16.9	20.5							
6 10	14 31.48	+ 6 6.9	1.514	2.310	19.4	20.7							
279565	2011 <i>DT</i> ₁		5 6.8	106°04'	3.9°	2.1	18						
4 1	15 14.40	- 1 54.1	3.420	4.251	8.3	21.3							
4 11	15 10.29	- 1 3.6	3.361	4.267	6.5	21.2							
4 21	15 5.15	- 0 15.4	3.327	4.282	4.8	21.1							
5 1	14 59.35	+ 0 27.3	3.322	4.297	3.9	21.0							
5 11	14 53.38	+ 1 1.8	3.346	4.311	4.5	21.1							
5 21	14 47.69	+ 1 26.2	3.398	4.326	6.0	21.2							
5 31	14 42.70	+ 1 39.3	3.476	4.340	7.8	21.3							
6 10	14 38.73	+ 1 40.8	3.577	4.354	9.5	21.5							
463406	2013 <i>HU</i> ₁₇		5 6.8	339°74'	5.4°	4.4	17						
4 1	15 17.30	- 8 3.3	1.055	1.938	18.8	20.5							
4 11	15 14.97	- 7 28.8	0.984	1.924	14.5	20.2							
4 21	15 9.33	- 6 52.3	0.933	1.912	9.8	19.9							
5 1	15 1.20	- 6 20.9	0.902	1.900	5.8	19.6							
5 11	14 51.99	- 6 2.1	0.892	1.890	6.8	19.6							
5 21	14 43.32	- 6 1.9	0.904	1.882	11.5	19.9							
5 31	14 36.70	- 6 23.5	0.936	1.874	16.6	20.1							
6 10	14 33.17	- 7 7.0	0.984	1.869	21.2	20.4							
312924	2011 <i>WN</i> ₃₅		5 6.8	213°05'	2°0'	5.1	18						
4 1	15 19.40	-10 22.8	2.857	3.684	9.9	21.5							
4 11	15 14.39	-10 4.7	2.766	3.678	7.5	21.3							
4 21	15 7.92	- 9 44.9	2.701	3.671	4.8	21.1							
5 1	15 0.44	- 9 25.4	2.664	3.663	2.4	20.9							
5 11	14 52.58	- 9 8.6	2.657	3.656	2.7	20.9							
5 21	14 44.97	- 8 56.8	2.678	3.648	5.4	21.1							
5 31	14 38.21	- 8 52.0	2.728	3.639	8.1	21.3							
6 10	14 32.78	- 8 55.4	2.802	3.630	10.6	21.4							
172554	2003 <i>UR</i> ₁₀₄		5 6.8	101°31'	3°2'	8.5	17						
4 1	15 25.50	-24 42.0	1.577	2.398	16.9	20.5							
4 11	15 20.27	-25 1.4	1.505	2.405	13.3	20.3							
4 21	15 12.21	-25 6.5	1.453	2.413	9.1	20.0							
5 1	15 2.14	-24 56.1	1.426	2.421	4.9	19.8							
5 11	14 51.37	-24 31.9	1.424	2.428	3.4	19.7							
5 21	14 41.23	-23 58.1	1.449	2.436	6.9	20.0							
5 31	14 32.95	-23 20.9	1.499	2.443	11.1	20.2							
6 10	14 27.34	-22 46.9	1.570	2.450	14.8	20.5							
286668	2002 <i>ES</i> ₁₂₀		5 6.8	148°36'	4°4'	3.1	17						
4 1	15 20.16	- 6 28.6	2.160	3.000	12.2	21.4							
4 11	15 15.23	- 5 21.8	2.092	3.008	9.3	21.2							
4 21	15 8.53	- 4 14.1	2.049	3.015	6.4	21.0							
5 1	15 0.67	- 3 10.7	2.033	3.022	4.5	20.9							
5 11	14 52.46	- 2 16.6	2.046	3.028	5.4	21.0							
5 21	14 44.71	- 1 36.1	2.085	3.034	8.0	21.2							
5 31	14 38.14	- 1 11.6	2.150	3.040	10.9	21.4							
6 10	14 33.29	- 1 4.0	2.237	3.045	13.5	21.5							
514542	2017 <i>CV</i>		5 6.8	243°03'	5°8'	27.2	18						
4 1	15 13.07	+16 16.8	4.660	5.436	7.2	21.3							
4 11	15 9.11	+16 50.1	4.599	5.432	6.4	21.3							
4 21	15 4.34	+17 15.1	4.562	5.427	5.9	21.2							
5 1	14 59.06	+17 29.5	4.551	5.423	5.8	21.2							
5 11	14 53.61	+17 31.7	4.566	5.418	6.2	21.2							
5 21	14 48.34	+17 21.0	4.605	5.413	7.0	21.3							
5 31	14 43.58	+16 57.3	4.667	5.409	7.9	21.4							
6 10	14 39.61	+16 21.7	4.750	5.404	8.8	21.4							
283275	2011 <i>HE</i> ₂₉		5 6.8	281°32'	7°6'	1.2	17						
4 1	15 20.10	+ 2 25.9	1.969	2.808	13.2	20.2							
4 11	15 15.58	+ 3 26.0	1.885	2.790	10.8	20.0							
4 21	15 8.99	+ 4 20.4	1.825	2.771	8.6	19.8							
5 1	15 0.92	+ 5 2.7	1.789	2.753	7.6	19.7							
5 11	14 52.23	+ 5 27.3	1.780	2.734	8.6	19.7							
5 21	14 43.85	+ 5 30.6	1.796	2.716	10.9	19.8							
5 31	14 36.66	+ 5 11.4	1.834	2.697	13.7	20.0							
6 10	14 31.34	+ 4 30.9	1.893	2.678	16.4	20.1							
373364	2012 <i>KZ</i> ₄₇		5 6.8	6°58'	1°4'	6.0	17						
4 1	15 19.73	-15 38.0	1.474	2.328	16.1	20.7							
4 11	15 15.88	-15 10.4	1.402	2.328	12.2	20.5							
4 21	15 9.40	-14 33.9	1.352	2.328	7.7	20.2							
5 1	15 1.09	-13 51.9	1.326	2.329	2.9	19.9							
5 11	14 52.14	-13 9.6	1.325	2.331	2.9	19.9							
5 21	14 43.75	-12 32.4	1.349	2.333	7.7	20.2							
5 31	14 37.06	-12 5.6	1.397	2.335	12.2	20.5							
6 10	14 32.80	-11 52.7	1.465	2.338	16.1	20.7							
277831	2006 <i>HL</i> ₃₇		5 6.8	284°12'	4°5'	2.9	17						
4 1	15 18.02	- 8 29.2	1.939	2.788	13.0	20.4							
4 11	15 14.10	- 7 11.9	1.845	2.767	10.0	20.2							
4 21	15 8.10	- 5 49.0	1.774	2.745	6.8	19.9							
5 1	15 0.60	- 4 26.4	1.731	2.723	4.6	19.8							
5 11	14 52.46	- 3 10.9	1.714	2.701	5.7	19.8							
5 21	14 44.60	- 2 8.7	1.724	2.679	9.0	19.9							
5 31	14 37.91	- 1 24.5	1.758	2.656	12.5	20.1							
6 10	14 33.08	- 1 0.6	1.813	2.634	15.7	20.3							
204736	2006 <i>HF</i> ₇₂		5 6.8	200°19'	2°8'	4.6	18						
4 1	15 19.61	-10 17.4	2.212	3.050	12.0	20.9							
4 11	15 14.91	- 9 36.2	2.131	3.048	9.1	20.7							
4 21	15 8.39	- 8 51.8	2.075	3.046	5.9	20.5							
5 1	15 0.65	- 8 7.8	2.045	3.044	3.2	20.3							
5 11	14 52.47	- 7 28.4	2.044	3.041	3.8	20.3							
5 21	14 44.65	- 6 57.2	2.071	3.038	6.8	20.5							
5 31	14 37.96	- 6 37.3	2.123	3.034	10.1	20.7							
6 10	14 32.96	- 6 30.3	2.199	3.030	12.9	20.9							

EPHEMERIDES

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
462851	2010 <i>UZ</i> ₄₉		5 6.8 296°00	2°6/ 5.5 17			39327	2001 <i>XY</i> ₉₇		5 6.8 189°26	0°5/ 7.3 18		
4 1	15 21.44	-12 33.2	1.457	2.313	16.2	21.1	4 1	15 19.25	-20 7.3	3.140	3.947	9.6	20.6
4 11	15 17.43	-12 8.0	1.370	2.297	12.4	20.8	4 11	15 14.21	-19 50.9	3.047	3.945	7.3	20.4
4 21	15 10.60	-11 36.5	1.305	2.281	8.0	20.5	4 21	15 7.79	-19 27.5	2.979	3.944	4.7	20.3
5 1	15 1.65	-11 2.5	1.263	2.265	3.5	20.2	5 1	15 0.44	-18 58.4	2.940	3.941	1.9	20.1
5 11	14 51.74	-10 31.1	1.246	2.249	4.0	20.2	5 11	14 52.76	-18 25.4	2.930	3.938	1.2	20.0
5 21	14 42.20	-10 7.6	1.254	2.234	8.7	20.4	5 21	14 45.34	-17 51.2	2.951	3.934	4.0	20.2
5 31	14 34.29	-9 56.7	1.286	2.219	13.5	20.7	5 31	14 38.74	-17 18.5	3.000	3.930	6.7	20.4
6 10	14 28.96	-10 1.3	1.337	2.204	17.7	20.9	6 10	14 33.42	-16 50.1	3.075	3.925	9.2	20.5
463111	2011 <i>UY</i> ₁₅₄		5 6.8 115°07	0°6/ 6.4 18			59081	1998 <i>VJ</i> ₂₄		5 6.8 131°75	2°2/ 5.4 18		
4 1	15 25.28	-17 51.7	1.754	2.584	15.0	22.6	4 1	15 24.64	-14 29.8	1.604	2.446	15.6	20.0
4 11	15 19.47	-17 14.9	1.692	2.604	11.3	22.4	4 11	15 19.24	-13 39.5	1.538	2.458	11.8	19.8
4 21	15 11.34	-16 28.2	1.652	2.623	7.1	22.2	4 21	15 11.35	-12 40.9	1.495	2.469	7.4	19.6
5 1	15 1.75	-15 34.7	1.639	2.642	2.6	22.0	5 1	15 1.82	-11 38.6	1.478	2.480	3.1	19.3
5 11	14 51.79	-14 39.3	1.653	2.660	2.2	22.0	5 11	14 51.81	-10 38.6	1.487	2.490	3.5	19.4
5 21	14 42.55	-13 47.4	1.695	2.677	6.6	22.3	5 21	14 42.50	-9 46.9	1.523	2.500	7.8	19.7
5 31	14 34.96	-13 4.2	1.763	2.693	10.6	22.6	5 31	14 34.91	-9 8.6	1.585	2.509	12.0	19.9
6 10	14 29.63	-12 33.2	1.853	2.709	14.0	22.8	6 10	14 29.70	-8 46.6	1.667	2.517	15.6	20.2
66664	1999 <i>TB</i> ₉		5 6.8 255°08	2°5/ 4.7 18			87630	2000 <i>RE</i> ₅₅		5 6.8 205°50	3°7/ 10.0 18		
4 1	15 19.01	-13 31.5	2.087	2.926	12.6	19.8	4 1	15 22.90	-30 37.5	2.379	3.157	13.1	19.9
4 11	15 14.68	-12 25.8	1.993	2.912	9.5	19.5	4 11	15 17.59	-30 29.6	2.282	3.152	10.6	19.8
4 21	15 8.39	-11 11.8	1.924	2.897	6.1	19.3	4 21	15 10.21	-30 6.2	2.207	3.146	7.8	19.6
5 1	15 0.70	-9 53.8	1.881	2.882	2.9	19.1	5 1	15 1.41	-29 26.4	2.158	3.140	5.0	19.4
5 11	14 52.47	-8 37.5	1.867	2.867	3.7	19.1	5 11	14 52.06	-28 32.0	2.137	3.133	3.7	19.3
5 21	14 44.56	-7 28.7	1.881	2.851	7.2	19.3	5 21	14 43.11	-27 26.6	2.145	3.126	5.5	19.4
5 31	14 37.80	-6 32.4	1.921	2.835	10.8	19.5	5 31	14 35.42	-26 16.0	2.180	3.118	8.5	19.5
6 10	14 32.84	-5 52.0	1.984	2.819	14.0	19.6	6 10	14 29.62	-25 6.3	2.240	3.109	11.4	19.7
327662	2006 <i>QT</i> ₉₈		5 6.8 266°23	0°0/ 6.6 18			390841	2004 <i>RJ</i> ₄₄		5 6.8 262°74	1°2/ 5.8 18		
4 1	15 15.02	-18 10.1	3.426	4.242	8.7	21.6	4 1	15 17.60	-14 57.8	2.597	3.426	10.7	21.9
4 11	15 10.98	-17 49.8	3.321	4.226	6.6	21.4	4 11	15 13.29	-14 25.6	2.498	3.411	8.1	21.7
4 21	15 5.73	-17 23.9	3.241	4.209	4.2	21.3	4 21	15 7.37	-13 47.5	2.423	3.395	5.1	21.5
5 1	14 59.65	-16 53.8	3.190	4.192	1.6	21.0	5 1	15 0.33	-13 5.9	2.376	3.379	2.0	21.3
5 11	14 53.24	-16 21.3	3.168	4.175	1.2	21.0	5 11	14 52.83	-12 23.8	2.358	3.363	2.2	21.2
5 21	14 46.99	-15 48.8	3.176	4.158	3.8	21.2	5 21	14 45.56	-11 44.8	2.369	3.346	5.4	21.4
5 31	14 41.42	-15 18.7	3.212	4.141	6.4	21.3	5 31	14 39.19	-11 12.1	2.407	3.330	8.5	21.6
6 10	14 36.92	-14 53.4	3.274	4.124	8.7	21.4	6 10	14 34.27	-10 48.5	2.469	3.313	11.3	21.8
151718	2003 <i>BL</i> ₅₃		5 6.8 20°86	3°1/ 8.7 17			466892	2015 <i>DC</i> ₁₄₆		5 6.8 277°97	2°4/ 5.2 17		
4 1	15 21.34	-25 25.0	1.548	2.374	16.8	19.7	4 1	15 20.02	-13 30.3	1.710	2.557	14.5	21.3
4 11	15 17.21	-25 31.0	1.473	2.377	13.3	19.5	4 11	15 15.83	-12 46.3	1.628	2.550	11.0	21.1
4 21	15 10.31	-25 21.0	1.418	2.379	9.2	19.3	4 21	15 9.29	-11 54.8	1.568	2.543	7.0	20.8
5 1	15 1.48	-24 54.5	1.387	2.383	5.0	19.0	5 1	15 1.11	-11 0.0	1.534	2.536	3.1	20.6
5 11	14 51.94	-24 13.9	1.382	2.386	3.3	18.9	5 11	14 52.28	-10 7.3	1.527	2.529	3.6	20.6
5 21	14 42.98	-23 24.5	1.401	2.390	6.8	19.1	5 21	14 43.89	-9 22.2	1.546	2.522	7.7	20.8
5 31	14 35.80	-22 33.2	1.445	2.394	11.1	19.4	5 31	14 36.93	-8 49.6	1.589	2.515	11.9	21.0
6 10	14 31.19	-21 47.0	1.511	2.398	14.9	19.6	6 10	14 32.14	-8 32.5	1.654	2.508	15.5	21.2
166659	2002 <i>TS</i> ₃₃		5 6.8 166°69	0°3/ 6.6 17			141179	2001 <i>XR</i> ₁₅₉		5 6.8 174°53	3°5/ 4.1 18		
4 1	15 20.39	-17 13.7	2.183	3.011	12.5	20.6	4 1	15 19.33	-6 24.7	2.480	3.316	11.0	20.2
4 11	15 15.59	-16 58.8	2.101	3.012	9.5	20.4	4 11	15 14.50	-5 55.5	2.403	3.317	8.4	20.0
4 21	15 8.88	-16 36.9	2.043	3.014	6.0	20.2	4 21	15 8.06	-5 26.7	2.351	3.318	5.7	19.8
5 1	15 0.87	-16 9.7	2.012	3.015	2.2	20.0	5 1	15 0.56	-5 1.5	2.326	3.318	3.6	19.7
5 11	14 52.38	-15 40.0	2.008	3.016	1.7	19.9	5 11	14 52.69	-4 43.1	2.330	3.319	4.2	19.7
5 21	14 44.29	-15 11.2	2.033	3.016	5.6	20.2	5 21	14 45.16	-4 33.9	2.361	3.319	6.7	19.9
5 31	14 37.39	-14 47.1	2.085	3.017	9.1	20.4	5 31	14 38.63	-4 35.6	2.419	3.319	9.5	20.0
6 10	14 32.27	-14 30.6	2.160	3.017	12.2	20.6	6 10	14 33.59	-4 48.8	2.500	3.319	12.0	20.2
67980	2000 <i>XU</i> ₁₀		5 6.8 300°99	5°5/ 9.8 18			298254	2002 <i>VG</i> ₇₈		5 6.8 187°82	0°0/ 6.9 18		
4 1	15 22.24	-29 31.0	1.426	2.244	18.5	18.1	4 1	15 11.05	-19 5.4	4.943	5.753	6.3	20.8
4 11	15 18.53	-29 56.5	1.337	2.230	15.1	17.8	4 11	15 7.63	-18 37.6	4.850	5.752	4.7	20.6
4 21	15 11.57	-30 2.4	1.266	2.216	11.2	17.5	4 21	15 3.45	-18 5.6	4.785	5.751	3.0	20.5
5 1	15 2.09	-29 45.3	1.217	2.203	7.3	17.3	5 1	14 58.79	-17 30.6	4.748	5.750	1.1	20.3
5 11	14 51.45	-29 5.4	1.192	2.190	5.6	17.1	5 11	14 53.97	-16 53.9	4.742	5.749	0.8	20.3
5 21	14 41.22	-28 7.0	1.191	2.177	8.2	17.2	5 21	14 49.30	-16 17.3	4.766	5.748	2.7	20.5
5 31	14 32.93	-26 58.6	1.214	2.164	12.5	17.4	5 31	14 45.09	-15 42.6	4.819	5.747	4.4	20.6
6 10	14 27.65	-25 50.4	1.257	2.152	16.8	17.7	6 10	14 41.60	-15 11.2	4.899	5.746	6.0	20.7
335508	2005 <i>YJ</i> ₁₄₂		5 6.8 275°76	0°9/ 7.4 17			87081	2000 <i>KH</i> ₇₆		5 6.8 296°39	3°5/ 4.7 18		
4 1	15 21.32	-20 26.3	1.821	2.651	14.6	21.1	4 1	15 20.41	-10 53.7	1.627	2.480	14.9	19.6
4 11	15 16.84	-20 20.2	1.732	2.642	11.3	20.9	4 11	15 16.51	-10 11.7	1.526	2.451	11.5	19.3
4 21	15 9.97	-20 3.4	1.665	2.634	7.4	20.6	4 21	15 10.01	-9 23.5	1.447	2.422	7.5	19.0
5 1	15 1.36	-19 36.8	1.623	2.625	3.1	20.4	5 1	15 1.49	-8 33.4	1.393	2.393	4.0	18.7
5 11	14 52.05	-19 3.1	1.609	2.616	1.9	20.3	5 11	14 51.98	-7 47.3	1.365	2.363	4.8	18.7
5 21	14 43.10	-18 26.5	1.621	2.608	6.3	20.5	5 21	14 42.65	-7 11.1	1.362	2.334	9.0	18.8
5 31	14 35.58	-17 52.1	1.658	2.599	10.4	20.7	5 31	14 34.69	-6 49.9	1.382	2.305	13.5	19.0
6 10	14 30.25	-17 24.7	1.718	2.590	14.1	20.9	6 10	14 29.03	-6 46.7	1.423	2.276	17.6	19.2
335088	2004 <i>TW</i> ₃₅		5 6.8 303°02	1°5/ 7.6 17			457659	2009 <i>CX</i> ₄₇		5 6.8 82°72	14°5/ 15.6 16		

EPHEMERIDES

5 6.8

5 6.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
409283	2004 <i>RT</i> ₂₂₅		5 6.8 277°26	3°5/ 8.4	17		138831	2000 <i>UD</i> ₆₈		5 6.8 57°27	2°6/ 9.2	18	
4 1	15 25.97	-24 6.8	1.492	2.318	17.4	21.5	4 1	15 19.11	-27 39.3	2.110	2.913	13.8	19.0
4 11	15 21.35	-24 37.4	1.393	2.296	13.9	21.2	4 11	15 14.68	-27 12.4	2.040	2.930	10.8	18.9
4 21	15 13.45	-24 55.4	1.313	2.274	9.8	20.9	4 21	15 8.30	-26 30.2	1.994	2.947	7.5	18.7
5 1	15 2.89	-24 58.2	1.256	2.252	5.4	20.6	5 1	15 0.68	-25 33.8	1.972	2.965	4.1	18.5
5 11	14 50.94	-24 45.5	1.225	2.229	3.8	20.4	5 11	14 52.74	-24 26.8	1.979	2.982	2.7	18.4
5 21	14 39.15	-24 20.0	1.219	2.206	7.8	20.6	5 21	14 45.37	-23 14.3	2.013	3.000	5.2	18.6
5 31	14 29.10	-23 47.9	1.237	2.183	12.8	20.8	5 31	14 39.35	-22 2.3	2.074	3.017	8.5	18.9
6 10	14 22.00	-23 17.0	1.276	2.160	17.3	21.0	6 10	14 35.22	-20 56.4	2.160	3.035	11.5	19.1
341888	2008 <i>GT</i> ₁₄₃		5 6.8 205°96	2°9/ 2.3	18		63839	2001 <i>RM</i> ₇₆		5 6.8 158°16	0°7/ 6.5	18	
4 1	15 10.69	- 2 2.2	4.655	5.485	6.3	21.5	4 1	15 26.84	-14 8.7	2.103	2.926	13.1	19.5
4 11	15 7.38	- 1 28.4	4.578	5.484	4.9	21.4	4 11	15 20.54	-14 20.7	2.024	2.932	10.0	19.3
4 21	15 3.32	- 0 56.4	4.528	5.483	3.6	21.3	4 21	15 12.08	-14 29.2	1.968	2.937	6.3	19.1
5 1	14 58.76	- 0 28.0	4.506	5.482	2.9	21.3	5 1	15 2.15	-14 35.0	1.939	2.942	2.4	18.8
5 11	14 54.04	- 0 5.1	4.513	5.481	3.3	21.3	5 11	14 51.66	-14 39.8	1.940	2.946	2.0	18.8
5 21	14 49.47	+ 0 11.0	4.549	5.480	4.6	21.4	5 21	14 41.60	-14 45.5	1.969	2.950	5.9	19.1
5 31	14 45.36	+ 0 19.3	4.611	5.479	6.0	21.5	5 31	14 32.88	-14 54.6	2.026	2.954	9.6	19.3
6 10	14 41.96	+ 0 19.4	4.698	5.478	7.3	21.6	6 10	14 26.16	-15 9.0	2.107	2.956	12.8	19.5
141943	2002 <i>PF</i> ₁₀₀		5 6.8 181°49	2°5/ 5.1	17		64303	2001 <i>UF</i> ₂₃		5 6.8 230°96	3°7/ 9.9	18	
4 1	15 24.14	-10 41.5	2.208	3.038	12.4	21.0	4 1	15 20.29	-29 43.2	2.312	3.100	13.2	19.3
4 11	15 18.35	-10 13.7	2.127	3.039	9.4	20.8	4 11	15 15.67	-29 42.8	2.220	3.097	10.6	19.2
4 21	15 10.61	- 9 43.0	2.070	3.040	6.0	20.6	4 21	15 9.04	-29 27.8	2.151	3.093	7.7	19.0
5 1	15 1.56	- 9 12.3	2.040	3.040	3.0	20.4	5 1	15 1.02	-28 57.5	2.106	3.090	4.9	18.8
5 11	14 52.04	- 8 45.3	2.040	3.039	3.4	20.4	5 11	14 52.46	-28 13.5	2.090	3.086	3.7	18.7
5 21	14 42.92	- 8 25.0	2.068	3.037	6.7	20.6	5 21	14 44.28	-27 19.3	2.101	3.083	5.5	18.8
5 31	14 35.00	- 8 14.3	2.123	3.035	10.0	20.8	5 31	14 37.33	-26 20.1	2.139	3.079	8.5	19.0
6 10	14 28.90	- 8 14.8	2.201	3.032	13.0	21.0	6 10	14 32.25	-25 21.6	2.201	3.075	11.4	19.2
178699	2000 <i>SS</i> ₇₁		5 6.8 154°07	2°8/ 3.6	18		406513	2007 <i>VX</i> ₁₈₀		5 6.8 240°44	1°0/ 6.3	17	
4 1	15 17.29	- 8 0.4	3.161	3.990	9.0	21.8	4 1	15 25.01	-15 19.6	1.732	2.568	14.9	22.0
4 11	15 12.60	- 7 7.8	3.088	3.999	6.8	21.7	4 11	15 19.79	-15 7.6	1.640	2.555	11.4	21.7
4 21	15 6.70	- 6 13.9	3.041	4.007	4.5	21.5	4 21	15 11.96	-14 48.5	1.570	2.543	7.3	21.4
5 1	15 0.04	- 5 22.0	3.023	4.015	2.9	21.4	5 1	15 2.20	-14 24.4	1.526	2.529	2.8	21.1
5 11	14 53.15	- 4 35.2	3.035	4.022	3.5	21.5	5 11	14 51.58	-13 58.4	1.509	2.515	2.5	21.1
5 21	14 46.55	- 3 56.3	3.077	4.029	5.6	21.6	5 21	14 41.31	-13 34.9	1.519	2.501	7.2	21.3
5 31	14 40.74	- 3 27.3	3.145	4.036	7.8	21.8	5 31	14 32.51	-13 18.1	1.554	2.486	11.7	21.5
6 10	14 36.10	- 3 9.4	3.238	4.041	9.9	21.9	6 10	14 26.06	-13 11.7	1.612	2.471	15.6	21.8
267333	2001 <i>UZ</i> ₁₉₃		5 6.8 119°41	0°2/ 6.7	17		317936	2003 <i>WX</i> ₃₂		5 6.8 189°11	2°1/ 8.4	18	
4 1	15 24.05	-17 25.1	2.036	2.861	13.4	21.6	4 1	15 21.07	-24 30.5	2.176	2.985	13.2	20.8
4 11	15 18.36	-17 10.1	1.968	2.877	10.2	21.4	4 11	15 16.27	-24 23.3	2.089	2.984	10.3	20.6
4 21	15 10.62	-16 47.6	1.923	2.893	6.4	21.2	4 21	15 9.42	-24 3.9	2.025	2.984	7.0	20.4
5 1	15 1.55	-16 19.3	1.905	2.908	2.4	21.0	5 1	15 1.16	-23 32.8	1.987	2.983	3.6	20.2
5 11	14 52.09	-15 48.5	1.916	2.923	1.8	21.0	5 11	14 52.38	-22 52.2	1.977	2.982	2.3	20.1
5 21	14 43.18	-15 18.8	1.954	2.937	5.8	21.3	5 21	14 44.00	-22 5.8	1.994	2.981	5.3	20.3
5 31	14 35.68	-14 54.1	2.020	2.951	9.4	21.5	5 31	14 36.88	-21 18.7	2.039	2.979	8.8	20.5
6 10	14 30.15	-14 37.3	2.108	2.964	12.6	21.7	6 10	14 31.65	-20 35.6	2.108	2.978	12.0	20.7
366833	2005 <i>MC</i>		5 6.8 172°59	6°8/ 15.3	14	14	476372	2008 <i>CL</i> ₃₄		5 6.8 21°24	6°6/ 11.9	17	
4 1	15 30.86	-47 48.5	3.507	4.145	11.6	23.0	4 1	15 22.35	-36 34.8	2.225	2.980	14.6	21.3
4 11	15 23.22	-48 7.7	3.410	4.151	10.3	22.9	4 11	15 17.54	-37 13.1	2.139	2.982	12.3	21.2
4 21	15 13.59	-48 9.4	3.333	4.156	8.9	22.8	4 21	15 10.39	-37 34.1	2.075	2.983	9.9	21.0
5 1	15 2.65	-47 51.0	3.281	4.160	7.6	22.7	5 1	15 1.57	-37 34.8	2.033	2.985	7.7	20.9
5 11	14 51.30	-47 11.8	3.254	4.162	6.9	22.7	5 11	14 52.08	-37 14.9	2.018	2.987	6.6	20.8
5 21	14 40.45	-46 13.7	3.256	4.164	7.0	22.7	5 21	14 43.00	-36 36.7	2.028	2.989	7.4	20.8
5 31	14 30.92	-45 0.5	3.285	4.165	7.8	22.7	5 31	14 35.35	-35 45.1	2.064	2.992	9.4	21.0
6 10	14 23.30	-43 38.0	3.340	4.164	9.1	22.8	6 10	14 29.86	-34 47.1	2.123	2.994	11.9	21.1
382942	2004 <i>TD</i> ₂₈₇		5 6.8 213°05	0°2/ 6.7	17		306126	2010 <i>JK</i> ₁₀₁		5 6.8 281°25	0°1/ 6.9	18	
4 1	15 22.47	-17 14.7	2.316	3.138	12.1	21.5	4 1	15 20.96	-17 7.0	2.285	3.110	12.1	20.7
4 11	15 17.16	-17 3.2	2.224	3.131	9.2	21.3	4 11	15 16.13	-17 13.6	2.189	3.098	9.3	20.5
4 21	15 9.93	-16 44.9	2.155	3.124	5.9	21.1	4 21	15 9.35	-17 14.7	2.117	3.086	6.0	20.2
5 1	15 1.34	-16 21.1	2.113	3.116	2.2	20.8	5 1	15 1.16	-17 11.0	2.072	3.074	2.3	20.0
5 11	14 52.20	-15 54.4	2.100	3.107	1.7	20.8	5 11	14 52.37	-17 4.2	2.055	3.062	1.6	19.9
5 21	14 43.37	-15 27.9	2.116	3.098	5.5	21.0	5 21	14 43.81	-16 56.7	2.066	3.050	5.4	20.1
5 31	14 35.66	-15 5.2	2.159	3.089	9.0	21.2	5 31	14 36.34	-16 51.4	2.104	3.038	8.9	20.3
6 10	14 29.70	-14 49.2	2.227	3.079	12.1	21.4	6 10	14 30.60	-16 50.8	2.166	3.026	12.1	20.5
391750	2008 <i>DX</i> ₅₄		5 6.8 33°86	7°3/ 2.0	17		118410	1999 <i>RD</i> ₂₃₉		5 6.8 226°28	0°6/ 6.3	18	
4 1	15 19.26	+ 2 55.6	1.960	2.800	13.2	20.3	4 1	15 19.40	-15 26.1	2.826	3.648	10.2	20.3
4 11	15 14.71	+ 3 40.5	1.905	2.810	10.7	20.1	4 11	15 14.52	-15 15.4	2.731	3.639	7.7	20.1
4 21	15 8.30	+ 4 17.1	1.873	2.820	8.4	20.0	4 21	15 8.11	-15 0.3	2.660	3.629	4.9	19.9
5 1	15 0.68	+ 4 40.1	1.865	2.830	7.3	19.9	5 1	15 0.65	-14 42.1	2.617	3.620	1.8	19.7
5 11	14 52.72	+ 4 45.6	1.884	2.840	8.0	20.0	5 11	14 52.76	-14 22.9	2.604	3.610	1.6	19.7
5 21	14 45.28	+ 4 31.7	1.927	2.851	10.1	20.2	5 21	14 45.10	-14 5.0	2.620	3.600	4.7	19.9
5 31	14 39.11	+ 3 58.6	1.994	2.862	12.6	20.3	5 31	14 38.30	-13 50.9	2.664	3.589	7.7	20.1
6 10	14 34.75	+ 3 8.3	2.081	2.874	14.9	20.5	6 10	14 32.87	-13 42.7	2.732	3.578	10.3	20.2
474991	2005 <i>TU</i> ₁₂₈		5 6.8 238°23	1°1/ 5.7	17		387812	2004 <i>EE</i> ₄₉		5 6.8 10°89	5°9/ 2.4</		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
67727	2000 <i>UH</i> ₂₃		5 6.9 209°31	2°9/ 4.3 18			6770	Fugate		5 6.9 164°12	4°0/ 3.2 18		
4 1	15 19.39	-12 47.4	2.018	2.860	12.9	19.7	4 1	15 18.23	-5 46.2	2.489	3.327	10.9	17.7
4 11	15 14.95	-11 34.0	1.937	2.857	9.7	19.5	4 11	15 13.67	-4 53.0	2.416	3.330	8.3	17.5
4 21	15 8.56	-10 13.2	1.880	2.853	6.2	19.2	4 21	15 7.56	-3 59.9	2.368	3.333	5.8	17.3
5 1	15 0.84	-8 49.8	1.850	2.849	3.2	19.0	5 1	15 0.44	-3 10.8	2.348	3.335	4.1	17.2
5 11	14 52.66	-7 30.1	1.848	2.845	4.0	19.1	5 11	14 52.98	-2 29.7	2.355	3.338	4.8	17.3
5 21	14 44.89	-6 20.0	1.874	2.841	7.4	19.3	5 21	14 45.88	-2 0.0	2.391	3.340	7.2	17.4
5 31	14 38.37	-5 24.3	1.926	2.837	11.0	19.5	5 31	14 39.76	-1 43.7	2.452	3.341	9.8	17.6
6 10	14 33.67	-4 45.9	2.000	2.832	14.1	19.7	6 10	14 35.10	-1 41.4	2.536	3.343	12.2	17.8
331611	2001 <i>XJ</i> ₂₅₀		5 6.9 198°60	2°9/ 9.2 17			57162	2001 <i>QM</i> ₁₆		5 6.9 165°88	2°6/ 4.9 18		
4 1	15 22.72	-28 0.0	2.214	3.007	13.5	20.7	4 1	15 22.88	-10 50.1	2.158	2.991	12.5	19.9
4 11	15 17.54	-27 42.3	2.121	3.004	10.8	20.5	4 11	15 17.42	-10 16.4	2.082	2.996	9.4	19.7
4 21	15 10.24	-27 9.2	2.051	3.000	7.6	20.3	4 21	15 10.05	-9 39.5	2.030	3.001	6.1	19.5
5 1	15 1.48	-26 20.8	2.006	2.996	4.3	20.1	5 1	15 1.40	-9 2.7	2.005	3.004	3.0	19.3
5 11	14 52.19	-25 19.5	1.990	2.992	3.0	20.0	5 11	14 52.31	-8 29.8	2.009	3.008	3.5	19.3
5 21	14 43.33	-24 9.8	2.002	2.987	5.5	20.1	5 21	14 43.67	-8 4.4	2.041	3.010	6.7	19.5
5 31	14 35.78	-22 57.8	2.041	2.981	8.9	20.3	5 31	14 36.25	-7 49.2	2.100	3.012	10.1	19.8
6 10	14 30.20	-21 49.6	2.106	2.975	12.0	20.5	6 10	14 30.63	-7 46.0	2.181	3.014	13.0	20.0
342381	2008 <i>UT</i> ₃₀		5 6.9 303°82	1°8/ 5.6 17			390342	2013 <i>CT</i> ₇₉		5 6.9 344°06	4°0/ 3.5 17		
4 1	15 18.56	-15 9.9	1.661	2.511	14.8	21.6	4 1	15 17.65	-5 58.5	2.312	3.154	11.4	20.7
4 11	15 15.04	-14 29.0	1.563	2.486	11.3	21.3	4 11	15 13.38	-5 14.0	2.237	3.153	8.8	20.5
4 21	15 9.02	-13 38.1	1.486	2.462	7.2	21.0	4 21	15 7.45	-4 29.7	2.186	3.153	6.0	20.4
5 1	15 1.14	-12 40.5	1.435	2.438	2.9	20.7	5 1	15 0.42	-3 49.5	2.163	3.153	4.1	20.2
5 11	14 52.38	-11 41.7	1.409	2.414	3.3	20.7	5 11	14 53.00	-3 17.5	2.167	3.152	4.9	20.3
5 21	14 43.87	-10 47.9	1.409	2.390	7.9	20.9	5 21	14 45.94	-2 56.7	2.198	3.152	7.4	20.4
5 31	14 36.75	-10 5.2	1.434	2.366	12.4	21.1	5 31	14 39.92	-2 49.4	2.255	3.152	10.2	20.6
6 10	14 31.85	-9 38.0	1.479	2.343	16.5	21.3	6 10	14 35.44	-2 56.0	2.334	3.151	12.7	20.8
155601	2000 <i>CY</i> ₉₇		5 6.9 315°41	4°0/ 8.9 18			251941	1999 <i>WT</i> ₁₈		5 6.9 274°61	0°0/ 6.6 17		
4 1	15 23.88	-26 2.4	1.306	2.139	19.0	19.7	4 1	15 22.56	-18 28.8	1.651	2.489	15.5	21.6
4 11	15 19.80	-26 19.0	1.229	2.136	15.2	19.4	4 11	15 18.19	-18 9.4	1.552	2.468	11.9	21.3
4 21	15 12.37	-26 17.3	1.171	2.133	10.7	19.2	4 21	15 11.11	-17 38.5	1.475	2.447	7.7	21.0
5 1	15 2.44	-25 55.5	1.135	2.130	6.0	18.9	5 1	15 1.96	-16 57.9	1.422	2.425	2.9	20.7
5 11	14 51.49	-25 15.2	1.123	2.127	4.2	18.8	5 11	14 51.84	-16 11.2	1.395	2.403	2.2	20.6
5 21	14 41.15	-24 22.1	1.135	2.124	7.9	19.0	5 21	14 41.98	-15 23.9	1.395	2.381	7.3	20.8
5 31	14 32.93	-23 24.8	1.170	2.121	12.8	19.2	5 31	14 33.61	-14 42.0	1.420	2.358	12.0	21.1
6 10	14 27.83	-22 32.4	1.225	2.119	17.2	19.5	6 10	14 27.65	-14 11.1	1.466	2.336	16.3	21.2
276231	2002 <i>QQ</i> ₁₄₃		5 6.9 214°78	1°1/ 6.1 17			407753	2011 <i>WR</i> ₃₃		5 6.9 104°56	3°0/ 5.2 18		
4 1	15 23.40	-15 39.5	2.046	2.875	13.2	22.2	4 1	15 25.54	-11 3.7	1.560	2.406	15.8	21.9
4 11	15 18.10	-15 11.8	1.956	2.868	10.1	22.0	4 11	15 19.95	-10 31.5	1.501	2.422	11.9	21.7
4 21	15 10.64	-14 36.6	1.888	2.859	6.4	21.8	4 21	15 11.83	-9 55.7	1.464	2.437	7.6	21.5
5 1	15 1.66	-13 56.4	1.848	2.850	2.4	21.5	5 1	15 2.08	-9 20.5	1.452	2.452	3.7	21.3
5 11	14 52.07	-13 14.9	1.835	2.841	2.4	21.5	5 11	14 51.88	-8 50.8	1.467	2.467	4.2	21.4
5 21	14 42.83	-12 36.3	1.851	2.830	6.4	21.7	5 21	14 42.41	-8 30.9	1.508	2.481	8.2	21.6
5 31	14 34.87	-12 4.9	1.894	2.820	10.3	21.9	5 31	14 34.70	-8 23.8	1.573	2.495	12.2	21.9
6 10	14 28.86	-11 44.0	1.959	2.808	13.6	22.1	6 10	14 29.41	-8 31.0	1.660	2.509	15.7	22.2
230929	2004 <i>VJ</i> ₅₅		5 6.9 106°38	3°4/ 4.7 18			391318	2006 <i>TB</i> ₈₂		5 6.9 47°77	0°7/ 7.5 17		
4 1	15 22.56	-7 57.5	1.970	2.810	13.2	20.4	4 1	15 17.90	-22 15.2	2.084	2.907	13.2	20.7
4 11	15 17.28	-7 34.6	1.902	2.819	10.0	20.2	4 11	15 13.81	-21 33.9	2.007	2.914	10.1	20.5
4 21	15 9.99	-7 11.4	1.859	2.828	6.6	20.0	4 21	15 7.81	-20 40.2	1.954	2.921	6.6	20.3
5 1	15 1.37	-6 51.5	1.841	2.837	3.8	19.8	5 1	15 0.56	-19 36.3	1.927	2.929	2.7	20.0
5 11	14 52.32	-6 38.4	1.851	2.846	4.3	19.9	5 11	14 52.93	-18 26.7	1.928	2.936	1.6	20.0
5 21	14 43.79	-6 34.8	1.889	2.855	7.4	20.1	5 21	14 45.78	-17 16.6	1.957	2.944	5.4	20.2
5 31	14 36.58	-6 42.6	1.952	2.864	10.7	20.3	5 31	14 39.89	-16 11.6	2.013	2.951	9.0	20.5
6 10	14 31.29	-7 2.3	2.037	2.872	13.7	20.5	6 10	14 35.80	-15 16.3	2.092	2.959	12.2	20.7
464438	2016 <i>BP</i> ₃₅		5 6.9 130°97	3°9/ 4.9 16			381140	2007 <i>EB</i> ₁₈₇		5 6.9 254°14	3°3/ 4.5 18		
4 1	15 25.22	-8 52.8	1.505	2.354	16.1	20.9	4 1	15 21.94	-9 42.8	2.055	2.893	12.8	21.2
4 11	15 19.92	-8 23.4	1.438	2.360	12.3	20.7	4 11	15 17.04	-9 2.9	1.958	2.874	9.8	21.0
4 21	15 11.95	-7 52.4	1.393	2.365	8.0	20.5	4 21	15 10.02	-8 19.3	1.884	2.855	6.5	20.7
5 1	15 2.16	-7 24.4	1.373	2.371	4.4	20.2	5 1	15 1.47	-7 35.9	1.837	2.835	3.6	20.5
5 11	14 51.76	-7 4.2	1.378	2.376	5.0	20.3	5 11	14 52.23	-6 57.1	1.818	2.814	4.3	20.5
5 21	14 42.00	-6 55.9	1.409	2.380	9.0	20.5	5 21	14 43.24	-6 27.3	1.827	2.793	7.7	20.7
5 31	14 33.99	-7 2.2	1.465	2.385	13.1	20.8	5 31	14 35.42	-6 10.0	1.861	2.771	11.3	20.9
6 10	14 28.49	-7 23.6	1.540	2.389	16.7	21.0	6 10	14 29.46	-6 7.0	1.918	2.749	14.6	21.0
473147	2015 <i>KG</i> ₁₁		5 6.9 310°85	7°5/ 1.5 17			340306	2006 <i>CD</i> ₆₉		5 6.9 225°88	3°4/ 1.3 18		
4 1	15 19.09	+ 2 41.6	1.967	2.808	13.2	20.2	4 1	15 10.70	+ 0 37.9	4.664	5.491	6.4	21.1
4 11	15 14.81	+ 3 34.0	1.891	2.796	10.7	20.0	4 11	15 7.41	+ 1 17.7	4.589	5.488	5.0	21.0
4 21	15 8.53	+ 4 19.7	1.837	2.784	8.5	19.8	4 21	15 3.37	+ 1 55.0	4.539	5.485	3.9	20.9
5 1	15 0.86	+ 4 52.7	1.808	2.772	7.5	19.7	5 1	14 58.84	+ 2 27.6	4.518	5.482	3.4	20.9
5 11	14 52.65	+ 5 7.9	1.805	2.761	8.4	19.8	5 11	14 54.14	+ 2 53.6	4.526	5.479	3.8	20.9
5 21	14 44.79	+ 5 2.5	1.826	2.749	10.6	19.9	5 21	14 49.59	+ 3 11.6	4.561	5.476	5.0	21.0
5 31	14 38.13	+ 4 35.6	1.871	2.738	13.3	20.0	5 31	14 45.49	+ 3 20.8	4.623	5.473	6.3	21.1
6 10	14 33.30	+ 3 48.9	1.936	2.727	15.9	20.2	6 10	14 42.10	+ 3 20.8	4.708	5.470	7.6	21.2
304582	2006 <i>VL</i> ₄₆		5 6.9 319°73	0°0/ 6.7 17			228194	3046 <i>P-L</i>		5 6.9 287°23	5°6/ 10.1 18		
4 1	15 21.25	-16 53.7	2.201										

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
353571	2011 <i>SO</i> ₂₄₉		5 6.9 200°03	2°3/ 5.0	18		163742	2003 <i>MQ</i>		5 6.9 247°99	6°0/12.6	18	
4 1	15 19.86	- 9 36.6	2.607	3.437	10.6	21.0	4 1	15 25.14	-39 24.1	2.627	3.350	13.3	19.7
4 11	15 14.91	- 9 18.4	2.522	3.435	8.1	20.9	4 11	15 19.44	-39 21.0	2.509	3.329	11.4	19.5
4 21	15 8.37	- 8 58.8	2.463	3.433	5.2	20.7	4 21	15 11.54	-38 58.5	2.411	3.307	9.2	19.3
5 1	15 0.77	- 8 40.3	2.431	3.430	2.7	20.5	5 1	15 2.05	-38 14.1	2.339	3.285	7.2	19.2
5 11	14 52.78	- 8 25.5	2.429	3.427	3.1	20.5	5 11	14 51.91	-37 7.9	2.293	3.261	6.0	19.0
5 21	14 45.07	- 8 16.7	2.455	3.423	5.8	20.7	5 21	14 42.12	-35 42.8	2.276	3.237	6.7	19.0
5 31	14 38.31	- 8 15.8	2.508	3.420	8.7	20.9	5 31	14 33.62	-34 4.6	2.287	3.213	8.7	19.1
6 10	14 33.00	- 8 24.1	2.585	3.416	11.3	21.0	6 10	14 27.11	-32 20.9	2.324	3.187	11.2	19.2
385208	1999 <i>TS</i> ₁₁₀		5 6.9 228°24	1°9/ 8.6	17		504037	2005 <i>UP</i> ₂₂₁		5 6.9 243°01	1°4/ 7.8	17	
4 1	15 21.73	-25 45.0	2.485	3.281	12.1	21.9	4 1	15 23.97	-21 55.1	2.173	2.984	13.2	23.0
4 11	15 16.62	-25 20.2	2.380	3.268	9.6	21.7	4 11	15 18.65	-21 51.7	2.068	2.967	10.3	22.8
4 21	15 9.61	-24 42.2	2.300	3.255	6.6	21.5	4 21	15 11.11	-21 38.0	1.986	2.949	6.9	22.5
5 1	15 1.27	-23 51.6	2.246	3.241	3.4	21.2	5 1	15 1.92	-21 14.1	1.931	2.930	3.1	22.3
5 11	14 52.41	-22 50.9	2.221	3.226	2.1	21.1	5 11	14 51.99	-20 41.8	1.904	2.911	1.9	22.2
5 21	14 43.85	-21 44.2	2.225	3.210	5.0	21.3	5 21	14 42.28	-20 4.7	1.905	2.891	5.6	22.4
5 31	14 36.39	-20 36.5	2.258	3.194	8.3	21.5	5 31	14 33.78	-19 27.1	1.934	2.870	9.5	22.5
6 10	14 30.64	-19 33.3	2.315	3.178	11.3	21.6	6 10	14 27.23	-18 53.9	1.987	2.849	12.9	22.7
129666	1998 <i>QT</i> ₉₇		5 6.9 284°19	11°9/26.4	18		425823	2011 <i>EO</i> ₈		5 6.9 164°52	3°0/ 8.8	17	
4 1	15 18.66	- 2 21.9	1.124	2.001	18.4	19.6	4 1	15 24.14	-25 25.4	1.904	2.712	14.8	21.9
4 11	15 15.77	+ 1 9.0	1.059	1.988	14.9	19.3	4 11	15 18.94	-25 37.6	1.822	2.715	11.7	21.7
4 21	15 9.76	+ 4 48.3	1.017	1.974	12.3	19.2	4 21	15 11.32	-25 36.6	1.761	2.717	8.1	21.5
5 1	15 1.47	+ 8 16.0	0.998	1.961	12.2	19.1	5 1	15 1.99	-25 21.7	1.725	2.718	4.5	21.3
5 11	14 52.27	+11 11.5	1.003	1.947	14.8	19.2	5 11	14 51.99	-24 54.4	1.717	2.720	3.1	21.2
5 21	14 43.65	+13 20.6	1.030	1.934	18.6	19.3	5 21	14 42.47	-24 18.3	1.736	2.721	6.1	21.3
5 31	14 36.99	+14 37.3	1.074	1.920	22.4	19.5	5 31	14 34.45	-23 38.7	1.781	2.722	9.8	21.6
6 10	14 33.18	+15 4.5	1.131	1.907	25.7	19.7	6 10	14 28.68	-23 1.4	1.849	2.723	13.2	21.8
508499	2016 <i>QS</i> ₄		5 6.9 176°98	5°7/30.6	18		496227	2012 <i>BY</i> ₃₀		5 6.9 67°21	4°5/ 4.6	17	
4 1	15 17.06	+ 2 43.6	2.938	3.764	9.7	22.1	4 1	15 23.38	- 7 54.0	1.456	2.311	16.2	21.2
4 11	15 12.57	+ 3 48.1	2.870	3.766	7.8	21.9	4 11	15 18.57	- 7 19.4	1.393	2.318	12.4	21.0
4 21	15 6.78	+ 4 47.9	2.828	3.767	6.3	21.8	4 21	15 11.13	- 6 44.0	1.352	2.324	8.2	20.8
5 1	15 0.16	+ 5 38.8	2.814	3.768	5.7	21.8	5 1	15 1.90	- 6 13.2	1.335	2.331	4.8	20.6
5 11	14 53.26	+ 6 17.2	2.827	3.768	6.4	21.8	5 11	14 52.10	- 5 52.1	1.343	2.338	5.6	20.6
5 21	14 46.65	+ 6 40.7	2.867	3.769	8.0	21.9	5 21	14 42.95	- 5 44.9	1.376	2.345	9.3	20.9
5 31	14 40.86	+ 6 48.2	2.931	3.768	9.9	22.1	5 31	14 35.57	- 5 53.8	1.433	2.352	13.4	21.1
6 10	14 36.30	+ 6 40.1	3.018	3.768	11.7	22.2	6 10	14 30.66	- 6 19.0	1.510	2.360	16.9	21.4
83038	2001 <i>QN</i> ₁₉₀		5 6.9 295°63	8°3/12.1	18		215572	2003 <i>FE</i> ₅₄		5 6.9 66°27	5°5/ 2.8	17	
4 1	15 22.75	-37 18.4	1.655	2.429	18.1	19.0	4 1	15 19.41	- 1 37.0	2.121	2.962	12.4	20.2
4 11	15 18.96	-37 49.0	1.550	2.405	15.6	18.7	4 11	15 14.70	- 0 49.9	2.066	2.978	9.6	20.1
4 21	15 11.95	-37 56.4	1.463	2.381	12.6	18.5	4 21	15 8.26	- 0 7.1	2.036	2.994	7.1	19.9
5 1	15 2.39	-37 35.2	1.397	2.356	9.8	18.2	5 1	15 0.74	+ 0 26.7	2.032	3.010	5.6	19.9
5 11	14 51.58	-36 43.1	1.355	2.332	8.3	18.1	5 11	14 52.94	+ 0 47.7	2.054	3.026	6.3	20.0
5 21	14 41.05	-35 23.1	1.337	2.308	9.4	18.1	5 21	14 45.63	+ 0 53.3	2.103	3.042	8.6	20.1
5 31	14 32.35	-33 43.4	1.343	2.283	12.4	18.2	5 31	14 39.52	+ 0 42.9	2.177	3.058	11.1	20.3
6 10	14 26.61	-31 55.7	1.370	2.260	16.0	18.3	6 10	14 35.09	+ 0 17.1	2.271	3.075	13.5	20.5
192770	1999 <i>TB</i> ₃₂₂		5 6.9 162°89	2°7/ 9.2	17		64139	2001 <i>TQ</i> ₃₅		5 6.9 39°97	4°8/10.5	18	
4 1	15 23.52	-27 7.0	2.605	3.390	11.9	21.4	4 1	15 20.48	-31 48.2	1.475	2.285	18.3	18.2
4 11	15 17.81	-27 11.2	2.518	3.397	9.5	21.2	4 11	15 16.66	-31 29.7	1.410	2.298	14.8	18.0
4 21	15 10.27	-27 4.0	2.456	3.402	6.7	21.0	4 21	15 10.01	-30 46.6	1.363	2.311	10.8	17.8
5 1	15 1.51	-26 44.9	2.420	3.408	3.9	20.8	5 1	15 1.48	-29 38.9	1.339	2.325	6.8	17.6
5 11	14 52.31	-26 15.3	2.412	3.412	2.8	20.8	5 11	14 52.43	-28 10.8	1.340	2.339	4.8	17.5
5 21	14 43.49	-25 38.1	2.434	3.416	4.9	20.9	5 21	14 44.21	-26 30.6	1.366	2.353	7.1	17.7
5 31	14 35.80	-24 57.2	2.484	3.420	7.7	21.1	5 31	14 37.95	-24 48.5	1.417	2.368	11.0	17.9
6 10	14 29.82	-24 17.1	2.560	3.423	10.4	21.3	6 10	14 34.33	-23 14.2	1.490	2.384	14.7	18.2
323098	2002 <i>VF</i> ₁₄₅		5 6.9 273°27	2°0/ 5.6	17		326968	2004 <i>JX</i> ₂₁		5 6.9 303°64	0°3/ 6.7	17	
4 1	15 22.06	-14 10.1	1.744	2.587	14.5	21.6	4 1	15 19.46	-19 12.6	1.589	2.432	15.7	21.0
4 11	15 17.61	-13 33.7	1.644	2.564	11.1	21.3	4 11	15 15.74	-18 34.7	1.503	2.423	12.0	20.7
4 21	15 10.65	-12 48.9	1.567	2.540	7.1	21.0	4 21	15 9.45	-17 43.3	1.439	2.413	7.7	20.5
5 1	15 1.80	-11 58.9	1.514	2.517	3.0	20.7	5 1	15 1.33	-16 41.2	1.400	2.403	2.9	20.1
5 11	14 52.05	-11 8.6	1.489	2.493	3.4	20.7	5 11	14 52.47	-15 33.7	1.386	2.394	2.2	20.1
5 21	14 42.53	-10 23.7	1.490	2.468	7.8	20.9	5 21	14 44.05	-14 27.6	1.399	2.385	7.2	20.3
5 31	14 34.38	- 9 49.5	1.516	2.443	12.2	21.1	5 31	14 37.20	-13 29.8	1.436	2.376	11.8	20.6
6 10	14 28.45	- 9 29.8	1.563	2.418	16.2	21.3	6 10	14 32.69	-12 45.8	1.494	2.367	15.8	20.8
114518	2003 <i>BQ</i> ₁₀		5 6.9 300°65	4°7/ 3.4	18		497658	2006 <i>RA</i> ₇₂		5 6.9 217°60	1°9/ 5.5	17	
4 1	15 19.33	- 3 51.3	2.184	3.025	12.0	19.5	4 1	15 22.23	-14 29.0	1.853	2.691	14.0	22.5
4 11	15 14.75	- 3 14.5	2.109	3.023	9.3	19.3	4 11	15 17.39	-13 45.3	1.768	2.685	10.6	22.3
4 21	15 8.39	- 2 39.8	2.058	3.022	6.6	19.2	4 21	15 10.29	-12 53.6	1.706	2.679	6.7	22.0
5 1	15 0.81	- 2 11.3	2.034	3.020	4.8	19.1	5 1	15 1.60	-11 57.5	1.670	2.672	2.8	21.7
5 11	14 52.81	- 1 53.0	2.037	3.018	5.5	19.1	5 11	14 52.30	-11 2.1	1.662	2.665	3.2	21.7
5 21	14 45.18	- 1 47.5	2.066	3.016	8.0	19.2	5 21	14 43.41	-10 12.6	1.680	2.657	7.2	22.0
5 31	14 38.66	- 1 56.4	2.121	3.015	10.9	19.4	5 31	14 35.90	- 9 34.0	1.725	2.649	11.2	22.2
6 10	14 33.80	- 2 19.6	2.198	3.013	13.5	19.6	6 10	14 30.47	- 9 9.5	1.791	2.640	14.7	22.4
506066	2015 <i>MO</i> ₃₅		5 6.9 157°44	4°8/ 3.0	17		74540	1999 <i>JG</i> ₂₂		5 6.9 310°			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
34257	2000 <i>QU</i> ₁₁₆		5 6.9 21°44'	1.3°/ 7.9	18		92434	2000 <i>JV</i> ₇₁		5 6.9 331°42'	3.6°/ 4.7	17	
4 1	15 18.53	-23 10.6	2.118	2.937	13.2	18.8	4 1	15 19.57	-13 14.9	1.243	2.110	17.6	19.4
4 11	15 14.37	-22 45.3	2.035	2.938	10.2	18.6	4 11	15 16.27	-12 9.4	1.173	2.105	13.4	19.1
4 21	15 8.25	-22 7.6	1.975	2.939	6.8	18.4	4 21	15 10.00	-10 53.3	1.122	2.100	8.6	18.9
5 1	15 0.80	-21 19.0	1.941	2.941	3.1	18.2	5 1	15 1.59	-9 33.2	1.094	2.096	4.2	18.6
5 11	14 52.90	-20 22.8	1.935	2.942	1.8	18.1	5 11	14 52.39	-8 17.9	1.091	2.092	5.2	18.6
5 21	14 45.42	-19 23.7	1.956	2.944	5.3	18.3	5 21	14 43.80	-7 16.2	1.111	2.088	10.0	18.9
5 31	14 39.18	-18 26.9	2.005	2.946	8.9	18.6	5 31	14 37.10	-6 34.8	1.153	2.085	14.8	19.1
6 10	14 34.77	-17 37.3	2.076	2.947	12.1	18.8	6 10	14 33.16	-6 16.7	1.214	2.082	19.1	19.4
374369	2005 <i>UE</i> ₃₁₂		5 6.9 42°24'	2.0°/ 5.6	16		350171	2011 <i>UF</i> ₃₃		5 6.9 287°14'	2.5°/ 8.5	16	
4 1	15 20.02	-14 46.3	1.431	2.288	16.4	20.7	4 1	15 21.51	-23 59.0	2.228	3.037	13.0	20.4
4 11	15 16.03	-14 3.4	1.375	2.301	12.3	20.4	4 11	15 16.71	-24 18.2	2.136	3.030	10.2	20.2
4 21	15 9.49	-13 12.2	1.339	2.315	7.7	20.2	4 21	15 9.84	-24 27.6	2.066	3.023	7.0	20.0
5 1	15 1.28	-12 17.5	1.327	2.330	3.1	20.0	5 1	15 1.47	-24 26.5	2.022	3.016	3.8	19.8
5 11	14 52.61	-11 25.4	1.341	2.345	3.4	20.0	5 11	14 52.46	-24 15.9	2.006	3.009	2.6	19.7
5 21	14 44.67	-10 41.8	1.380	2.361	7.9	20.3	5 21	14 43.74	-23 58.1	2.017	3.002	5.4	19.9
5 31	14 38.49	-10 11.7	1.442	2.377	12.2	20.6	5 31	14 36.20	-23 36.8	2.055	2.996	8.8	20.0
6 10	14 34.70	-9 57.4	1.525	2.393	15.9	20.9	6 10	14 30.53	-23 16.3	2.118	2.989	11.9	20.2
162280	1999 <i>VN</i> ₅₉		5 6.9 225°68'	0.2°/ 7.1	18		514100	2014 <i>YY</i> ₅₄		5 6.9 210°13'	6.0°/ 3.1	18	
4 1	15 15.29	-18 41.6	3.927	4.737	7.8	21.2	4 1	15 23.14	-0 20.4	2.050	2.884	13.0	21.0
4 11	15 11.08	-18 29.8	3.827	4.727	5.9	21.1	4 11	15 17.76	+0 12.4	1.975	2.881	10.3	20.8
4 21	15 5.81	-18 13.2	3.752	4.718	3.8	20.9	4 21	15 10.38	+0 40.0	1.923	2.878	7.6	20.7
5 1	14 59.84	-17 52.8	3.706	4.708	1.5	20.7	5 1	15 1.63	+0 57.7	1.898	2.875	6.0	20.6
5 11	14 53.58	-17 30.2	3.690	4.697	1.0	20.6	5 11	14 52.39	+1 1.5	1.900	2.871	6.7	20.6
5 21	14 47.49	-17 7.0	3.704	4.687	3.3	20.8	5 21	14 43.55	+0 49.4	1.928	2.868	9.2	20.7
5 31	14 41.98	-16 45.1	3.746	4.676	5.6	21.0	5 31	14 35.95	+0 20.5	1.981	2.864	12.0	20.9
6 10	14 37.43	-16 26.6	3.815	4.665	7.6	21.1	6 10	14 30.22	-0 24.0	2.056	2.860	14.7	21.1
135275	2001 <i>SG</i> ₁₃₀		5 6.9 109°72'	0.8°/ 7.5	17		249154	2008 <i>AD</i> ₁₁₀		5 6.9 309°25'	4.9°/ 10.7	18	
4 1	15 20.84	-20 52.2	2.511	3.323	11.6	20.7	4 1	15 19.93	-32 18.5	2.132	2.915	14.3	20.1
4 11	15 16.67	-20 37.8	2.440	3.340	8.8	20.6	4 11	15 15.76	-32 30.0	2.037	2.906	11.8	19.9
4 21	15 8.85	-20 15.0	2.393	3.357	5.7	20.4	4 21	15 9.34	-32 24.6	1.962	2.896	8.9	19.7
5 1	15 0.98	-19 45.0	2.373	3.374	2.4	20.2	5 1	15 1.30	-32 0.9	1.912	2.887	6.2	19.5
5 11	14 52.81	-19 10.3	2.383	3.390	1.4	20.1	5 11	14 52.59	-31 19.7	1.888	2.878	4.9	19.4
5 21	14 45.07	-18 34.1	2.421	3.406	4.6	20.4	5 21	14 44.24	-30 24.2	1.891	2.869	6.4	19.5
5 31	14 38.44	-18 0.0	2.487	3.421	7.7	20.6	5 31	14 37.22	-29 20.1	1.919	2.860	9.2	19.6
6 10	14 33.41	-17 31.3	2.578	3.437	10.4	20.8	6 10	14 32.26	-28 14.2	1.972	2.852	12.2	19.8
377874	2006 <i>CY</i> ₆₈		5 6.9 159°36'	0.1°/ 6.9	17		185428	2006 <i>XX</i> ₁₀		5 6.9 122°15'	4.3°/ 3.5	18	
4 1	15 22.08	-18 15.5	1.923	2.753	13.9	21.5	4 1	15 19.74	-3 11.3	2.470	3.304	11.1	20.1
4 11	15 17.23	-18 8.5	1.842	2.754	10.6	21.3	4 11	15 14.84	-2 42.8	2.400	3.309	8.6	20.0
4 21	15 10.16	-17 53.2	1.785	2.755	6.8	21.1	4 21	15 8.35	-2 17.1	2.353	3.314	6.1	19.8
5 1	15 1.56	-17 31.0	1.753	2.756	2.6	20.8	5 1	15 0.83	-1 57.6	2.335	3.319	4.4	19.7
5 11	14 52.38	-17 4.6	1.749	2.757	1.8	20.7	5 11	14 52.97	-1 47.3	2.344	3.324	5.0	19.8
5 21	14 43.64	-16 37.9	1.772	2.757	6.0	21.0	5 21	14 45.47	-1 48.2	2.381	3.328	7.2	19.9
5 31	14 36.27	-16 14.8	1.821	2.758	9.9	21.2	5 31	14 38.98	-2 1.5	2.443	3.333	9.8	20.1
6 10	14 30.95	-15 59.1	1.893	2.758	13.3	21.5	6 10	14 33.99	-2 27.1	2.529	3.337	12.1	20.3
141253	2001 <i>YD</i> ₉		5 6.9 180°18'	3.1°/ 4.2	18		254503	2005 <i>EQ</i> ₇₃		5 6.9 331°59'	2.6°/ 5.5	17	
4 1	15 19.81	-6 33.5	2.762	3.591	10.1	20.7	4 1	15 20.76	-12 58.3	1.352	2.212	16.9	19.9
4 11	15 14.76	-6 7.0	2.682	3.592	7.7	20.6	4 11	15 17.05	-12 29.3	1.277	2.206	12.9	19.6
4 21	15 8.25	-5 40.8	2.627	3.593	5.2	20.4	4 21	15 10.46	-11 53.6	1.223	2.200	8.2	19.3
5 1	15 0.77	-5 17.7	2.601	3.593	3.3	20.3	5 1	15 1.78	-11 15.1	1.192	2.194	3.6	19.0
5 11	14 52.96	-5 0.5	2.603	3.593	3.8	20.3	5 11	14 52.28	-10 39.6	1.185	2.189	4.0	19.0
5 21	14 45.43	-4 51.3	2.635	3.592	6.1	20.5	5 21	14 43.30	-10 12.8	1.203	2.184	8.8	19.3
5 31	14 38.81	-4 51.8	2.693	3.591	8.7	20.6	5 31	14 36.11	-9 59.4	1.243	2.180	13.6	19.5
6 10	14 33.55	-5 2.6	2.775	3.590	11.0	20.8	6 10	14 31.56	-10 2.2	1.304	2.176	17.7	19.8
86308	1999 <i>VN</i> ₈₅		5 6.9 282°99'	7.0°/ 2.2	18		265559	2005 <i>PM</i> ₂₄		5 6.9 148°64'	1.8°/ 8.3	17	
4 1	15 24.13	+5 43.1	2.420	3.235	11.9	19.2	4 1	15 24.80	-23 39.5	2.288	3.090	12.9	22.5
4 11	15 18.37	+6 5.2	2.326	3.212	9.8	19.0	4 11	15 18.93	-23 36.6	2.209	3.101	10.0	22.3
4 21	15 10.74	+6 18.5	2.255	3.189	7.9	18.8	4 21	15 11.07	-23 22.8	2.153	3.111	6.7	22.1
5 1	15 1.77	+6 18.6	2.211	3.166	7.0	18.7	5 1	15 1.88	-22 58.4	2.124	3.120	3.3	21.9
5 11	14 52.22	+6 1.9	2.195	3.142	7.6	18.7	5 11	14 52.25	-22 25.6	2.124	3.129	2.1	21.9
5 21	14 42.90	+5 27.0	2.206	3.119	9.5	18.8	5 21	14 43.09	-21 47.6	2.152	3.137	5.1	22.1
5 31	14 34.59	+4 34.0	2.242	3.095	11.9	18.9	5 31	14 35.21	-21 8.9	2.209	3.145	8.5	22.3
6 10	14 27.91	+3 24.9	2.300	3.071	14.3	19.1	6 10	14 29.22	-20 33.9	2.289	3.151	11.5	22.5
444794	2007 <i>TJ</i> ₂₀₉		5 6.9 188°29'	0.4°/ 7.4	17		462168	2007 <i>TK</i> ₂₅₈		5 6.9 149°98'	0.8°/ 7.4	16	
4 1	15 14.85	-19 54.0	4.263	5.068	7.3	23.2	4 1	15 25.65	-20 53.4	1.892	2.710	14.5	23.4
4 11	15 10.65	-19 39.3	4.169	5.066	5.6	23.1	4 11	15 19.91	-20 37.6	1.816	2.720	11.2	23.2
4 21	15 5.49	-19 19.6	4.101	5.065	3.6	22.9	4 21	15 11.84	-20 10.6	1.763	2.729	7.3	22.9
5 1	14 59.71	-18 55.9	4.062	5.063	1.5	22.8	5 1	15 2.20	-19 33.6	1.736	2.737	3.0	22.7
5 11	14 53.70	-18 29.6	4.053	5.060	0.9	22.7	5 11	14 52.04	-18 50.0	1.736	2.744	1.8	22.6
5 21	14 47.87	-18 2.5	4.074	5.058	3.0	22.9	5 21	14 42.45	-18 4.2	1.765	2.751	6.0	22.9
5 31	14 42.60	-17 36.4	4.125	5.055	5.1	23.0	5 31	14 34.39	-17 21.7	1.821	2.757	10.0	23.1
6 10	14 38.21	-17 13.2	4.202	5.051	6.9	23.1	6 10	14 28.53	-16 47.0	1.899	2.762	13.4	23.4
477970	2011 <i>SZ</i> ₅₂		5 6.9 257°32'	2.7°/ 8.8	17		271610	2004 <i>PZ</i> ₂₀		5 6.9 242°15'	0.0°/ 6.7	17	

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5 6.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
162818	2001 <i>BF</i> ₃₃		5 6.9 132°40	0°1/ 6.9 18			289207	2004 <i>XG</i> ₁₃		5 6.9 202°12	1°1/ 7.6 16		
4 1	15 25.30	-18 54.9	1.828	2.654	14.7	20.1	4 1	15 25.31	-21 30.5	1.829	2.648	14.9	21.8
4 11	15 19.64	-18 36.8	1.758	2.667	11.2	19.8	4 11	15 19.92	-21 17.5	1.741	2.645	11.6	21.5
4 21	15 11.66	-18 8.7	1.710	2.679	7.1	19.6	4 21	15 12.03	-20 52.4	1.675	2.641	7.6	21.3
5 1	15 2.13	-17 32.7	1.688	2.690	2.7	19.4	5 1	15 2.35	-20 15.7	1.635	2.636	3.3	21.0
5 11	14 52.11	-16 52.3	1.693	2.701	1.8	19.3	5 11	14 51.95	-19 30.7	1.622	2.630	1.9	20.9
5 21	14 42.71	-16 12.1	1.727	2.711	6.2	19.6	5 21	14 42.00	-18 42.0	1.638	2.624	6.3	21.2
5 31	14 34.86	-15 37.0	1.786	2.721	10.2	19.9	5 31	14 33.58	-17 55.5	1.679	2.617	10.5	21.4
6 10	14 29.23	-15 10.9	1.869	2.730	13.7	20.1	6 10	14 27.44	-17 16.5	1.743	2.609	14.3	21.6
163212	2002 <i>EZ</i> ₅₆		5 6.9 91°49	1°3/ 6.1 18			124539	2001 <i>RD</i> ₉₆		5 6.9 204°81	4°2/ 3.7 18		
4 1	15 23.18	-16 40.6	1.458	2.305	16.6	20.6	4 1	15 20.50	- 8 51.1	1.874	2.720	13.5	20.6
4 11	15 18.48	-15 58.9	1.395	2.316	12.6	20.4	4 11	15 15.98	- 7 45.4	1.797	2.717	10.3	20.4
4 21	15 11.11	-15 6.6	1.352	2.327	7.9	20.1	4 21	15 9.35	- 6 35.9	1.744	2.715	6.9	20.2
5 1	15 1.95	-14 7.7	1.334	2.337	3.0	19.9	5 1	15 1.29	- 5 28.2	1.718	2.712	4.3	20.0
5 11	14 52.25	-13 8.3	1.342	2.348	2.9	19.9	5 11	14 52.72	- 4 28.3	1.719	2.709	5.3	20.1
5 21	14 43.28	-12 14.9	1.375	2.358	7.7	20.2	5 21	14 44.59	- 3 41.5	1.746	2.706	8.5	20.3
5 31	14 36.14	-11 33.4	1.433	2.368	12.2	20.5	5 31	14 37.77	- 3 11.5	1.798	2.702	12.0	20.5
6 10	14 31.51	-11 7.5	1.512	2.378	16.0	20.7	6 10	14 32.91	- 2 59.8	1.871	2.698	15.1	20.7
123552	2000 <i>XD</i> ₂₉		5 6.9 184°58	1°7/ 5.5 18			509302	2006 <i>VQ</i> ₁₃₈		5 6.9 176°55	1°1/ 5.9 17		
4 1	15 20.41	-10 56.9	2.866	3.690	10.0	19.9	4 1	15 19.75	-13 46.8	2.720	3.545	10.4	22.5
4 11	15 15.22	-10 47.6	2.781	3.690	7.5	19.7	4 11	15 14.81	-13 30.1	2.637	3.547	7.9	22.3
4 21	15 8.57	-10 36.6	2.721	3.690	4.8	19.5	4 21	15 8.35	-13 9.6	2.578	3.548	5.0	22.1
5 1	15 0.93	-10 25.8	2.689	3.689	2.2	19.3	5 1	15 0.86	-12 47.1	2.547	3.549	2.0	21.9
5 11	14 52.93	-10 17.1	2.687	3.688	2.4	19.3	5 11	14 53.01	-12 25.2	2.545	3.549	2.0	21.9
5 21	14 45.20	-10 12.5	2.714	3.687	5.1	19.5	5 21	14 45.46	-12 6.2	2.572	3.549	5.0	22.1
5 31	14 38.34	-10 13.8	2.770	3.685	7.8	19.7	5 31	14 38.84	-11 52.7	2.627	3.549	7.9	22.3
6 10	14 32.82	-10 22.1	2.850	3.683	10.3	19.9	6 10	14 33.62	-11 46.4	2.707	3.549	10.5	22.5
67719	2000 <i>UY</i> ₁₀		5 6.9 134°00	3°2/ 8.9 18			209369	2004 <i>EG</i> ₁₄		5 6.9 296°90	5°5/ 2.6 18		
4 1	15 25.13	-26 50.6	1.678	2.489	16.4	19.4	4 1	15 18.40	- 2 55.4	2.090	2.935	12.4	19.5
4 11	15 19.92	-26 44.0	1.603	2.497	13.0	19.2	4 11	15 14.18	- 2 0.5	2.015	2.930	9.7	19.3
4 21	15 12.03	-26 20.0	1.549	2.505	9.0	19.0	4 21	15 8.13	- 1 7.4	1.963	2.924	7.0	19.1
5 1	15 2.31	-25 38.6	1.519	2.512	5.0	18.7	5 1	15 0.82	+ 0 21.6	1.938	2.919	5.5	19.0
5 11	14 51.98	-24 42.6	1.516	2.519	3.3	18.6	5 11	14 53.05	+ 0 12.3	1.939	2.914	6.4	19.0
5 21	14 42.30	-23 37.7	1.539	2.526	6.5	18.8	5 21	14 45.65	+ 0 30.7	1.967	2.909	8.9	19.2
5 31	14 34.40	-22 31.4	1.588	2.532	10.6	19.1	5 31	14 39.37	+ 0 31.7	2.019	2.904	11.7	19.4
6 10	14 29.02	-21 30.9	1.660	2.538	14.2	19.3	6 10	14 34.80	+ 0 15.4	2.092	2.900	14.3	19.5
354731	2005 <i>SR</i> ₁₉₅		5 6.9 170°45	3°1/ 9.3 16			134947	2001 <i>BD</i> ₇₄		5 6.9 31°23	5°7/ 10.1 18		
4 1	15 21.98	-27 12.1	2.604	3.392	11.9	21.8	4 1	15 23.27	-29 41.1	1.343	2.164	19.3	19.5
4 11	15 16.77	-27 33.2	2.515	3.393	9.5	21.6	4 11	15 19.28	-30 11.3	1.275	2.169	15.6	19.3
4 21	15 9.73	-27 43.8	2.449	3.394	6.8	21.4	4 21	15 12.02	-30 20.8	1.225	2.176	11.5	19.0
5 1	15 1.41	-27 42.9	2.410	3.395	4.2	21.2	5 1	15 2.41	-30 6.6	1.197	2.182	7.5	18.8
5 11	14 52.59	-27 31.4	2.399	3.396	3.2	21.2	5 11	14 51.94	-29 30.0	1.193	2.189	5.7	18.7
5 21	14 44.07	-27 11.1	2.416	3.397	5.0	21.3	5 21	14 42.21	-28 36.1	1.212	2.197	8.1	18.9
5 31	14 36.62	-26 45.7	2.461	3.398	7.7	21.5	5 31	14 34.63	-27 33.8	1.254	2.205	12.2	19.1
6 10	14 30.85	-26 19.1	2.531	3.398	10.3	21.6	6 10	14 30.10	-26 32.7	1.318	2.214	16.1	19.4
273865	2007 <i>GB</i> ₆₈		5 6.9 62°72	3°8/ 4.3 18			389760	2011 <i>SS</i> ₁₉₈		5 6.9 216°88	0°8/ 6.2 17		
4 1	15 22.50	-10 52.7	1.573	2.424	15.4	21.0	4 1	15 19.59	-15 30.9	2.548	3.373	11.0	22.1
4 11	15 17.42	- 9 43.4	1.531	2.455	11.5	20.8	4 11	15 14.85	-15 9.5	2.457	3.368	8.4	21.9
4 21	15 10.11	- 8 30.7	1.512	2.486	7.4	20.6	4 21	15 8.46	-14 42.6	2.391	3.362	5.3	21.7
5 1	15 1.48	- 7 20.8	1.519	2.517	4.1	20.5	5 1	15 0.94	-14 12.1	2.353	3.355	2.0	21.4
5 11	14 52.64	- 6 20.2	1.552	2.547	4.9	20.6	5 11	14 52.97	-13 40.7	2.343	3.349	1.9	21.4
5 21	14 44.65	- 5 34.2	1.611	2.578	8.4	20.9	5 21	14 45.29	-13 11.6	2.362	3.342	5.2	21.6
5 31	14 38.34	- 5 5.8	1.694	2.608	12.0	21.2	5 31	14 38.58	-12 47.7	2.409	3.334	8.4	21.8
6 10	14 34.24	- 4 55.7	1.799	2.638	15.0	21.4	6 10	14 33.38	-12 31.6	2.479	3.327	11.2	22.0
189565	2000 <i>SG</i> ₂₇₃		5 6.9 258°24	4°0/ 9.9 18			299930	2006 <i>TZ</i> ₂₃		5 6.9 224°97	1°5/ 5.6 17		
4 1	15 21.75	-29 58.8	1.916	2.713	15.2	20.2	4 1	15 17.97	-14 58.9	2.344	3.178	11.6	21.3
4 11	15 17.30	-29 51.1	1.822	2.704	12.3	20.0	4 11	15 13.72	-14 13.0	2.260	3.175	8.7	21.1
4 21	15 10.39	-29 25.1	1.749	2.695	9.0	19.8	4 21	15 7.77	-13 20.4	2.199	3.172	5.5	20.9
5 1	15 1.73	-28 39.8	1.700	2.686	5.6	19.5	5 1	15 0.68	-12 24.1	2.166	3.168	2.3	20.6
5 11	14 52.36	-27 37.4	1.678	2.677	4.0	19.4	5 11	14 53.17	-11 28.4	2.161	3.165	2.5	20.6
5 21	14 43.43	-26 22.6	1.682	2.667	6.3	19.5	5 21	14 46.00	-10 37.3	2.185	3.161	5.8	20.9
5 31	14 35.98	-25 2.7	1.713	2.658	9.9	19.7	5 31	14 39.88	- 9 54.9	2.235	3.158	9.1	21.1
6 10	14 30.78	-23 45.5	1.768	2.648	13.4	19.9	6 10	14 35.34	- 9 23.8	2.309	3.154	12.0	21.2
441348	2008 <i>CO</i> ₂₁₀		5 6.9 87°38	4°7/ 2.8 17			65087	2002 <i>BM</i> ₂₂		5 6.9 309°51	7°6/ 30.0 18		
4 1	15 17.95	- 4 31.8	2.302	3.143	11.5	21.2	4 1	15 16.86	+ 3 21.3	2.133	2.973	12.3	19.1
4 11	15 13.54	- 3 29.8	2.242	3.156	8.8	21.0	4 11	15 13.02	+ 4 37.2	2.060	2.962	10.1	19.0
4 21	15 7.54	- 2 29.0	2.206	3.169	6.3	20.9	4 21	15 7.40	+ 5 47.4	2.010	2.951	8.3	18.8
5 1	15 0.53	- 1 34.1	2.198	3.182	4.7	20.8	5 1	15 0.55	+ 6 45.3	1.986	2.941	7.6	18.8
5 11	14 53.25	- 0 49.7	2.217	3.194	5.5	20.9	5 11	14 53.25	+ 7 25.6	1.988	2.931	8.6	18.8
5 21	14 46.39	- 0 18.9	2.264	3.207	7.8	21.1	5 21	14 46.28	+ 7 44.8	2.014	2.920	10.7	18.9
5 31	14 40.60	- 0 3.6	2.335	3.219	10.4	21.2	5 31	14 40.38	+ 7 41.6	2.063	2.910	13.0	19.1
6 10	14 36.36	- 0 4.1	2.428	3.232	12.7	21.4	6 10	14 36.11	+ 7 17.0	2.131	2.901	15.3	19.2
497799	2006 <i>TC</i> ₅		5 6.9 142°92	1°6/ 8.1 18			130220	2000 <i>AM</i> ₂₄₅		5 6.9 37°			

EPHEMERIDES

5 6.9

5 6.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
353172	2009 LG ₃	5 6.9 348°05	5°1/ 2.9 17				98542	2000 VA ₅₁	5 6.9 75°40	3°8/ 9.1 18			
4 1	15 18.14	- 3 4.3	2.194	3.037	11.9	20.6	4 1	15 24.61	-26 43.5	1.454	2.276	18.0	19.6
4 11	15 13.88	- 2 16.5	2.122	3.036	9.3	20.5	4 11	15 19.92	-26 52.2	1.386	2.285	14.3	19.4
4 21	15 7.89	- 1 30.9	2.074	3.035	6.7	20.3	4 21	15 12.24	-26 42.7	1.337	2.294	10.0	19.2
5 1	15 0.73	- 0 52.3	2.052	3.034	5.2	20.2	5 1	15 2.48	-26 14.3	1.311	2.303	5.7	19.0
5 11	14 53.17	- 0 24.8	2.057	3.034	5.9	20.2	5 11	14 52.01	-25 29.3	1.310	2.313	3.9	18.9
5 21	14 45.98	- 0 11.5	2.089	3.033	8.3	20.4	5 21	14 42.27	-24 33.6	1.334	2.322	7.2	19.1
5 31	14 39.87	- 0 13.9	2.145	3.033	11.0	20.6	5 31	14 34.52	-23 35.0	1.383	2.331	11.5	19.3
6 10	14 35.38	- 0 32.1	2.223	3.032	13.6	20.7	6 10	14 29.58	-22 41.6	1.453	2.340	15.4	19.6
18728	Grammier	5 6.9 79°96	3°0/ 5.0 18				353575	2011 SG ₂₅₆	5 6.9 158°56	1°2/ 5.8 17			
4 1	15 22.92	-10 33.8	1.798	2.641	14.2	18.0	4 1	15 18.48	-14 30.7	2.586	3.414	10.8	21.3
4 11	15 17.67	- 9 59.4	1.743	2.662	10.7	17.8	4 11	15 13.93	-14 0.6	2.505	3.418	8.1	21.1
4 21	15 10.31	- 9 22.3	1.710	2.683	6.8	17.6	4 21	15 7.83	-13 25.5	2.449	3.421	5.1	20.9
5 1	15 1.62	- 8 46.5	1.704	2.703	3.5	17.5	5 1	15 0.71	-12 47.9	2.421	3.423	2.0	20.7
5 11	14 52.60	- 8 16.4	1.725	2.724	4.0	17.5	5 11	14 53.23	-12 10.8	2.422	3.426	2.1	20.7
5 21	14 44.23	- 7 55.7	1.773	2.744	7.4	17.8	5 21	14 46.09	-11 37.3	2.451	3.428	5.2	21.0
5 31	14 37.36	- 7 46.9	1.846	2.764	10.9	18.0	5 31	14 39.91	-11 10.5	2.508	3.430	8.2	21.1
6 10	14 32.55	- 7 51.1	1.941	2.784	14.0	18.3	6 10	14 35.19	-10 52.4	2.589	3.432	10.9	21.3
260723	2005 KL ₅	5 6.9 317°26	0°4/ 7.2 17				375959	2009 WM ₁₈₀	5 6.9 53°89	4°5/ 4.7 15			
4 1	15 20.36	-19 21.3	1.397	2.247	17.1	20.7	4 1	15 23.76	- 6 19.1	1.579	2.429	15.4	20.7
4 11	15 16.89	-19 11.1	1.313	2.234	13.2	20.4	4 11	15 18.51	- 5 56.0	1.530	2.451	11.7	20.5
4 21	15 10.49	-18 48.3	1.249	2.222	8.6	20.1	4 21	15 10.93	- 5 34.9	1.503	2.473	7.8	20.3
5 1	15 1.89	-18 14.4	1.208	2.211	3.4	19.8	5 1	15 1.87	- 5 20.1	1.501	2.495	4.8	20.2
5 11	14 52.32	-17 33.3	1.191	2.199	2.2	19.6	5 11	14 52.48	- 5 15.4	1.525	2.518	5.4	20.3
5 21	14 43.18	-16 50.7	1.200	2.189	7.6	19.9	5 21	14 43.84	- 5 23.3	1.574	2.540	8.6	20.5
5 31	14 35.78	-16 13.3	1.231	2.179	12.6	20.2	5 31	14 36.87	- 5 44.9	1.648	2.563	12.2	20.8
6 10	14 31.09	-15 46.9	1.283	2.169	17.1	20.4	6 10	14 32.17	- 6 19.6	1.743	2.586	15.3	21.0
297309	1998 UJ ₁₈	5 6.9 237°05	2°0/ 7.9 16				121818	2000 AB ₂₄₇	5 6.9 350°42	18°9/ 3.2 18			
4 1	15 27.09	-22 16.1	1.683	2.503	16.0	21.2	4 1	15 35.74	+20 40.0	1.054	1.865	24.0	19.6
4 11	15 21.72	-22 24.8	1.588	2.490	12.6	20.9	4 11	15 29.01	+21 26.8	1.005	1.863	21.8	19.4
4 21	15 13.46	-22 21.5	1.513	2.477	8.5	20.7	4 21	15 18.28	+21 37.4	0.970	1.861	19.9	19.3
5 1	15 3.01	-22 5.5	1.464	2.462	4.0	20.4	5 1	15 4.79	+20 58.2	0.952	1.859	19.0	19.2
5 11	14 51.53	-21 38.1	1.441	2.448	2.5	20.2	5 11	14 50.46	+19 22.3	0.953	1.858	19.4	19.2
5 21	14 40.36	-21 3.4	1.445	2.432	6.9	20.4	5 21	14 37.31	+16 53.1	0.973	1.858	21.1	19.3
5 31	14 30.82	-20 27.2	1.475	2.416	11.5	20.7	5 31	14 26.98	+13 41.6	1.012	1.858	23.5	19.5
6 10	14 23.86	-19 55.7	1.527	2.399	15.6	20.9	6 10	14 20.36	+10 3.3	1.068	1.858	26.1	19.7
210948	2001 UP ₂₁	5 6.9 237°61	4°8/ 10.7 18				370165	2002 AY ₇₂	5 6.9 121°34	2°6/ 5.1 17			
4 1	15 22.11	-32 18.3	2.330	3.103	13.5	20.3	4 1	15 22.97	-10 58.9	2.003	2.839	13.2	21.4
4 11	15 17.25	-32 38.1	2.236	3.098	11.1	20.1	4 11	15 17.62	-10 27.4	1.936	2.852	9.9	21.3
4 21	15 10.23	-32 43.0	2.163	3.093	8.5	19.9	4 21	15 10.28	- 9 52.9	1.893	2.864	6.4	21.1
5 1	15 1.67	-32 31.2	2.116	3.088	6.0	19.7	5 1	15 1.65	- 9 18.8	1.877	2.876	3.1	20.9
5 11	14 52.49	-32 3.0	2.095	3.082	4.8	19.7	5 11	14 52.62	- 8 48.9	1.888	2.888	3.6	20.9
5 21	14 43.65	-31 21.1	2.102	3.076	6.1	19.7	5 21	14 44.12	- 8 26.8	1.928	2.899	6.9	21.2
5 31	14 36.06	-30 30.3	2.135	3.071	8.7	19.9	5 31	14 36.95	- 8 15.3	1.993	2.910	10.3	21.4
6 10	14 30.43	-29 36.5	2.192	3.065	11.5	20.0	6 10	14 31.70	- 8 15.8	2.081	2.920	13.3	21.6
248440	2005 TN ₅₁	5 6.9 249°18	0°5/ 6.4 17				468472	2004 RC ₁₁₀	5 6.9 253°61	0°1/ 7.1 17			
4 1	15 17.93	-18 3.0	2.642	3.464	10.8	21.3	4 1	15 22.11	-22 53.9	2.230	3.041	12.9	21.2
4 11	15 13.60	-17 20.8	2.542	3.451	8.2	21.1	4 11	15 17.12	-21 39.0	2.120	3.021	10.0	21.0
4 21	15 7.68	-16 30.2	2.467	3.437	5.2	20.9	4 21	15 10.09	-20 7.2	2.035	3.000	6.5	20.7
5 1	15 0.67	-15 33.6	2.420	3.423	1.9	20.6	5 1	15 1.63	-18 21.3	1.977	2.979	2.5	20.4
5 11	14 53.22	-14 34.2	2.402	3.409	1.7	20.6	5 11	14 52.59	-16 26.5	1.949	2.957	1.7	20.3
5 21	14 46.02	-13 36.2	2.414	3.394	5.0	20.8	5 21	14 43.89	-14 30.1	1.952	2.935	5.8	20.6
5 31	14 39.75	-12 43.5	2.453	3.379	8.2	21.0	5 31	14 36.37	-12 39.9	1.984	2.912	9.8	20.7
6 10	14 34.91	-11 59.6	2.516	3.364	11.0	21.1	6 10	14 30.70	-11 2.6	2.040	2.888	13.2	20.9
350740	2001 YT ₃₅	5 6.9 183°39	2°9/ 4.9 18				299843	2006 SK ₂₁₆	5 6.9 27°89	4°3/ 3.3 18			
4 1	15 21.88	- 7 19.1	2.479	3.309	11.1	21.0	4 1	15 17.25	- 7 51.6	2.024	2.873	12.6	20.7
4 11	15 16.54	- 7 9.0	2.398	3.309	8.5	20.8	4 11	15 13.34	- 6 43.3	1.954	2.875	9.6	20.5
4 21	15 9.51	- 6 59.5	2.342	3.309	5.6	20.6	4 21	15 7.60	- 5 32.7	1.908	2.878	6.5	20.3
5 1	15 1.35	- 6 53.0	2.313	3.309	3.2	20.4	5 1	15 0.65	- 4 25.3	1.889	2.881	4.4	20.2
5 11	14 52.77	- 6 51.9	2.314	3.308	3.6	20.5	5 11	14 53.31	- 3 26.6	1.897	2.884	5.3	20.2
5 21	14 44.51	- 6 58.1	2.343	3.308	6.3	20.6	5 21	14 46.39	- 2 41.2	1.932	2.887	8.1	20.4
5 31	14 37.27	- 7 12.9	2.399	3.307	9.2	20.8	5 31	14 40.64	- 2 12.2	1.991	2.891	11.2	20.6
6 10	14 31.58	- 7 37.1	2.478	3.306	11.8	21.0	6 10	14 36.61	- 2 0.8	2.072	2.895	13.9	20.8
294763	2008 CW ₂₇	5 6.9 25°42	4°7/ 9.4 17				192064	2006 BX ₈₃	5 6.9 217°16	0°3/ 7.1 18			
4 1	15 24.11	-27 15.2	1.447	2.269	18.1	20.6	4 1	15 22.15	-19 2.4	1.983	2.810	13.7	21.0
4 11	15 19.73	-27 49.8	1.374	2.272	14.5	20.4	4 11	15 17.31	-18 51.9	1.897	2.806	10.5	20.8
4 21	15 12.26	-28 7.8	1.321	2.275	10.4	20.2	4 21	15 10.28	-18 32.4	1.834	2.803	6.8	20.6
5 1	15 2.53	-28 6.6	1.290	2.279	6.4	19.9	5 1	15 1.72	-18 5.2	1.797	2.799	2.7	20.3
5 11	14 51.92	-27 46.8	1.283	2.283	4.8	19.8	5 11	14 52.55	-17 33.1	1.787	2.795	1.7	20.2
5 21	14 41.92	-27 12.4	1.302	2.288	7.6	20.0	5 21	14 43.76	-16 59.9	1.806	2.791	5.9	20.5
5 31	14 33.90	-26 30.5	1.344	2.292	11.7	20.3	5 31	14 36.30	-16 30.1	1.850	2.787	9.8	20.7
6 10	14 28.75	-25 49.0	1.407	2.298	15.6	20.5	6 10	14 30.84	-16 7.6	1.917	2.782	13.2	20.9
148142	1999 VY ₁₃₄	5 6.9 286°92	0°1/ 7.0 18				301014	2008 KX ₂₀	5 6.9 172°85	4°1/ 4.2 17			
4 1	15 18.95	-18 27.9	2.339	3									

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
268938	2007 <i>DD</i> ₂₇		5 6.9 190°79	6°0/ 1.9 17			188143	2002 <i>EB</i> ₅₀		5 6.9 46°68	0°1/ 7.0 17		
4 1	15 21.21	- 1 37.3	2.177	3.014	12.3	21.8	4 1	15 18.89	-18 46.0	2.159	2.988	12.6	20.7
4 11	15 16.21	- 0 26.5	2.105	3.013	9.7	21.6	4 11	15 14.57	-18 30.3	2.085	2.995	9.6	20.5
4 21	15 9.39	+ 0 42.1	2.056	3.011	7.2	21.5	4 21	15 8.40	-18 6.3	2.034	3.003	6.1	20.3
5 1	15 1.33	+ 1 42.6	2.035	3.009	6.0	21.4	5 1	15 0.98	-17 36.0	2.009	3.011	2.4	20.1
5 11	14 52.85	+ 2 29.9	2.041	3.006	6.9	21.5	5 11	14 53.16	-17 2.3	2.012	3.020	1.5	20.0
5 21	14 44.76	+ 3 0.0	2.073	3.002	9.2	21.6	5 21	14 45.76	-16 28.8	2.043	3.028	5.3	20.3
5 31	14 37.82	+ 3 11.2	2.130	2.998	11.9	21.7	5 31	14 39.56	-15 59.3	2.100	3.037	8.8	20.5
6 10	14 32.58	+ 3 3.6	2.208	2.994	14.4	21.9	6 10	14 35.10	-15 37.1	2.181	3.046	11.8	20.7
467501	2006 <i>XH</i> ₃₄		5 6.9 63°16	0°4/ 6.7 18			159383	1998 <i>FC</i> ₁₃₆		5 6.9 342°99	4°0/ 3.8 18		
4 1	15 24.60	-16 20.4	1.535	2.377	16.2	20.3	4 1	15 16.89	-12 18.5	1.557	2.417	15.1	19.4
4 11	15 19.46	-16 20.2	1.475	2.393	12.3	20.1	4 11	15 13.69	-10 48.5	1.483	2.412	11.4	19.2
4 21	15 11.72	-16 12.5	1.436	2.409	7.8	19.8	4 21	15 8.13	- 9 9.0	1.431	2.407	7.4	18.9
5 1	15 2.25	-15 59.2	1.422	2.425	2.9	19.6	5 1	15 0.95	- 7 27.0	1.405	2.403	4.2	18.7
5 11	14 52.26	-15 43.4	1.434	2.441	2.2	19.6	5 11	14 53.19	- 5 51.5	1.404	2.400	5.4	18.8
5 21	14 42.98	-15 28.9	1.472	2.458	6.9	19.9	5 21	14 45.93	- 4 30.6	1.429	2.396	9.3	19.0
5 31	14 35.49	-15 19.8	1.535	2.475	11.2	20.2	5 31	14 40.16	- 3 30.5	1.478	2.394	13.3	19.2
6 10	14 30.47	-15 19.2	1.620	2.491	14.9	20.5	6 10	14 36.56	- 2 53.8	1.546	2.392	16.8	19.4
163871	2003 <i>SE</i> ₁₄₃		5 6.9 240°31	0°0/ 6.7 18			330701	2008 <i>KA</i> ₃₀		5 6.9 17°77	10°7/29.9 17		
4 1	15 22.50	-16 59.5	2.078	2.905	13.1	20.2	4 1	15 20.06	+ 5 56.2	1.494	2.343	16.2	19.9
4 11	15 17.51	-16 59.1	1.989	2.899	10.0	20.0	4 11	15 16.02	+ 7 25.5	1.441	2.345	13.5	19.7
4 21	15 10.40	-16 52.2	1.923	2.893	6.4	19.7	4 21	15 9.55	+ 8 43.1	1.410	2.347	11.4	19.6
5 1	15 1.78	-16 40.0	1.884	2.887	2.4	19.4	5 1	15 1.46	+ 9 39.7	1.401	2.350	10.7	19.6
5 11	14 52.54	-16 24.7	1.873	2.880	1.7	19.4	5 11	14 52.86	+10 8.1	1.416	2.354	11.8	19.6
5 21	14 43.63	-16 9.4	1.890	2.874	5.8	19.6	5 21	14 44.89	+10 5.2	1.452	2.357	14.1	19.8
5 31	14 35.95	-15 57.3	1.933	2.867	9.6	19.8	5 31	14 38.53	+ 9 31.9	1.508	2.361	16.7	20.0
6 10	14 30.18	-15 51.6	1.999	2.860	12.9	20.0	6 10	14 34.44	+ 8 32.1	1.582	2.366	19.2	20.1
508381	2016 <i>FO</i> ₅₃		5 6.9 300°80	0°7/ 6.5 17			21666	1999 <i>RW</i> ₁		5 6.9 231°84	0°6/ 7.4 18 R		
4 1	15 21.23	-16 29.8	1.492	2.341	16.2	21.5	4 1	15 22.36	-20 4.8	2.354	3.168	12.2	19.7
4 11	15 17.51	-16 15.9	1.396	2.319	12.5	21.2	4 11	15 17.24	-19 53.3	2.254	3.156	9.4	19.5
4 21	15 10.92	-15 52.4	1.321	2.296	8.1	20.9	4 21	15 10.17	-19 32.9	2.177	3.143	6.1	19.3
5 1	15 2.13	-15 21.4	1.270	2.274	3.1	20.5	5 1	15 1.71	-19 4.7	2.128	3.129	2.5	19.0
5 11	14 52.24	-14 46.8	1.244	2.252	2.6	20.4	5 11	14 52.64	-18 30.9	2.108	3.115	1.5	18.9
5 21	14 42.60	-14 13.9	1.244	2.230	7.9	20.7	5 21	14 43.84	-17 54.9	2.116	3.101	5.2	19.1
5 31	14 34.53	-13 48.3	1.266	2.208	12.9	20.9	5 31	14 36.13	-17 20.6	2.152	3.086	8.8	19.3
6 10	14 29.02	-13 35.0	1.309	2.187	17.4	21.1	6 10	14 30.15	-16 51.9	2.212	3.070	11.9	19.5
24349	2000 <i>AA</i> ₁₀₃		5 6.9 224°01	2°2/ 5.4 17			144026	2004 <i>BP</i> ₁₅		5 6.9 201°35	1°4/ 5.9 17		
4 1	15 23.24	-13 20.2	1.994	2.828	13.3	19.7	4 1	15 23.60	-15 12.7	2.010	2.840	13.4	20.9
4 11	15 18.11	-12 38.8	1.903	2.817	10.1	19.5	4 11	15 18.33	-14 40.0	1.924	2.836	10.2	20.6
4 21	15 10.80	-11 50.7	1.835	2.806	6.5	19.3	4 21	15 10.91	-13 59.9	1.861	2.832	6.4	20.4
5 1	15 1.94	-10 59.4	1.793	2.795	2.9	19.0	5 1	15 1.98	-13 15.2	1.824	2.827	2.5	20.1
5 11	14 52.44	-10 9.4	1.780	2.782	3.3	19.0	5 11	14 52.47	-12 30.0	1.816	2.821	2.6	20.1
5 21	14 43.28	- 9 25.5	1.795	2.769	7.1	19.2	5 21	14 43.36	-11 48.8	1.836	2.815	6.5	20.4
5 31	14 35.38	- 8 52.2	1.836	2.755	10.9	19.4	5 31	14 35.55	-11 15.8	1.883	2.808	10.4	20.6
6 10	14 29.46	- 8 32.2	1.900	2.741	14.3	19.6	6 10	14 29.72	-10 54.2	1.952	2.800	13.7	20.8
214240	2005 <i>ES</i> ₁₈₃		5 6.9 323°95	3°4/ 4.7 17			46015	2001 <i>CJ</i> ₃₆		5 6.9 35°51	4°5/ 4.7 18		
4 1	15 19.22	-12 48.3	1.386	2.248	16.5	20.2	4 1	15 23.19	- 7 47.4	1.409	2.266	16.5	18.5
4 11	15 15.80	-11 47.7	1.311	2.240	12.5	19.9	4 11	15 18.63	- 7 17.6	1.345	2.270	12.6	18.3
4 21	15 9.66	-10 37.8	1.257	2.234	8.1	19.6	4 21	15 11.34	- 6 47.3	1.301	2.274	8.4	18.0
5 1	15 1.56	- 9 24.8	1.226	2.227	4.0	19.3	5 1	15 2.18	- 6 21.7	1.282	2.279	4.9	17.8
5 11	14 52.71	- 8 16.3	1.220	2.221	4.8	19.4	5 11	14 52.36	- 6 6.1	1.287	2.283	5.6	17.9
5 21	14 44.38	- 7 19.9	1.239	2.215	9.3	19.6	5 21	14 43.19	- 6 4.3	1.317	2.288	9.5	18.1
5 31	14 37.76	- 6 41.6	1.281	2.209	13.9	19.9	5 31	14 35.80	- 6 18.5	1.370	2.293	13.6	18.4
6 10	14 33.64	- 6 24.5	1.342	2.205	17.9	20.1	6 10	14 30.94	- 6 48.9	1.443	2.298	17.3	18.6
132124	2002 <i>CW</i> ₂₃₇		5 6.9 44°81	7°5/ 8.3 18			177171	2003 <i>SE</i> ₁₄₆		5 6.9 221°12	1°2/ 7.7 17		
4 1	15 44.33	-23 33.6	1.071	1.893	23.0	17.2	4 1	15 25.64	-21 42.7	2.141	2.951	13.4	21.7
4 11	15 35.98	-26 20.3	1.029	1.925	18.4	17.0	4 11	15 19.95	-21 32.7	2.041	2.939	10.4	21.5
4 21	15 23.01	-28 54.5	1.006	1.957	13.3	16.8	4 21	15 12.01	-21 11.8	1.964	2.927	6.9	21.2
5 1	15 6.68	-31 3.4	1.007	1.991	8.8	16.7	5 1	15 2.44	-20 40.6	1.914	2.913	3.1	20.9
5 11	14 49.26	-32 38.0	1.034	2.025	7.7	16.8	5 11	14 52.14	-20 1.1	1.892	2.899	1.8	20.8
5 21	14 33.23	-33 37.6	1.086	2.059	10.6	17.0	5 21	14 42.14	-19 17.4	1.899	2.884	5.7	21.0
5 31	14 20.62	-34 9.4	1.161	2.094	14.6	17.3	5 31	14 33.41	-18 34.2	1.933	2.868	9.6	21.2
6 10	14 12.47	-34 25.0	1.255	2.129	18.2	17.7	6 10	14 26.69	-17 56.6	1.991	2.851	13.0	21.4
390645	2002 <i>PX</i> ₄₀		5 6.9 305°22	4°6/ 9.7 18			224425	2005 <i>UD</i> ₄₁₂		5 6.9 146°64	1°5/ 5.9 17		
4 1	15 21.40	-29 8.7	1.817	2.621	15.6	20.2	4 1	15 22.06	-14 37.6	1.959	2.794	13.5	21.1
4 11	15 17.58	-29 21.6	1.698	2.584	12.8	20.0	4 11	15 17.11	-14 5.9	1.884	2.800	10.2	20.9
4 21	15 11.00	-29 17.8	1.599	2.547	9.5	19.7	4 21	15 10.08	-13 27.8	1.832	2.805	6.4	20.6
5 1	15 2.20	-28 54.9	1.524	2.510	6.1	19.4	5 1	15 1.65	-12 46.2	1.807	2.809	2.6	20.4
5 11	14 52.19	-28 12.5	1.474	2.472	4.6	19.2	5 11	14 52.74	-12 5.3	1.809	2.814	2.7	20.4
5 21	14 42.21	-27 13.8	1.450	2.435	7.1	19.3	5 21	14 44.31	-11 29.3	1.839	2.818	6.5	20.7
5 31	14 33.59	-26 5.3	1.452	2.398	11.2	19.4	5 31	14 37.21	-11 2.2	1.895	2.822	10.2	20.9
6 10	14 27.39	-24 55.4	1.475	2.360	15.3	19.6	6 10	14 32.07	-10 46.5	1.974	2.825	13.5	21.1
446796	1999 <i>TC</i> ₇₁		5 6.9 232°54	1°0/ 8.0 17			111604	2002 <i>AG</i> ₈₆		5			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
62267	2000 SA ₉₀		5 6.9 240°49	2°6/ 9.0 18			36745	2000 RC ₆₄		5 6.9 296°72	4°6/ 9.3 18		
4 1	15 21.69	-27 22.0	1.988	2.792	14.5	18.8	4 1	15 23.32	-27 30.3	1.707	2.518	16.2	18.2
4 11	15 17.11	-26 55.1	1.893	2.783	11.5	18.6	4 11	15 19.09	-28 3.8	1.605	2.496	13.2	18.0
4 21	15 10.24	-26 11.0	1.820	2.774	8.0	18.4	4 21	15 11.98	-28 23.3	1.524	2.474	9.6	17.7
5 1	15 1.76	-25 10.0	1.772	2.765	4.4	18.1	5 1	15 2.60	-28 26.0	1.466	2.453	6.1	17.5
5 11	14 52.64	-23 55.4	1.751	2.755	2.8	18.0	5 11	14 52.06	-28 11.3	1.433	2.432	4.7	17.3
5 21	14 43.95	-22 32.7	1.758	2.746	5.8	18.2	5 21	14 41.69	-27 41.8	1.426	2.410	7.3	17.4
5 31	14 36.65	-21 9.0	1.792	2.735	9.6	18.4	5 31	14 32.86	-27 2.9	1.444	2.389	11.3	17.6
6 10	14 31.46	-19 51.5	1.850	2.725	13.2	18.6	6 10	14 26.59	-26 22.0	1.483	2.368	15.3	17.8
88621	2001 RR ₁₀		5 6.9 215°97	4°2/ 3.4 18 R			472194	2014 DC ₁₃₁		5 6.9 262°37	7°4/ 29.3 18		
4 1	15 22.04	- 5 54.5	2.366	3.199	11.5	20.2	4 1	15 17.58	+ 3 39.2	2.339	3.173	11.6	21.2
4 11	15 16.81	- 5 0.9	2.278	3.189	8.9	20.0	4 11	15 13.48	+ 5 7.5	2.262	3.159	9.6	21.0
4 21	15 9.79	- 4 6.4	2.215	3.178	6.2	19.8	4 21	15 7.70	+ 6 31.1	2.210	3.146	7.9	20.9
5 1	15 1.54	- 3 15.3	2.179	3.167	4.3	19.7	5 1	15 0.78	+ 7 43.6	2.184	3.132	7.5	20.8
5 11	14 52.80	- 2 32.1	2.172	3.155	5.1	19.7	5 11	14 53.41	+ 8 39.4	2.184	3.119	8.4	20.8
5 21	14 44.36	- 2 0.5	2.194	3.143	7.7	19.8	5 21	14 46.32	+ 9 14.7	2.210	3.105	10.4	20.9
5 31	14 36.95	- 1 43.2	2.241	3.129	10.6	20.0	5 31	14 40.21	+ 9 27.7	2.259	3.090	12.6	21.1
6 10	14 31.16	- 1 41.0	2.311	3.115	13.3	20.2	6 10	14 35.61	+ 9 19.3	2.327	3.076	14.7	21.2
123463	2000 WC ₁₄₃		5 6.9 118°78	7°0/ 1.2 18			173911	2001 VS ₃₁		5 6.9 73°98	3°4/ 4.9 18		
4 1	15 19.63	- 0 44.6	1.915	2.760	13.3	19.7	4 1	15 23.73	- 6 8.5	2.208	3.040	12.3	20.0
4 11	15 15.18	+ 0 41.4	1.855	2.766	10.6	19.5	4 11	15 17.96	- 6 1.7	2.150	3.061	9.3	19.8
4 21	15 8.80	+ 2 3.9	1.818	2.772	8.1	19.4	4 21	15 10.41	- 5 56.8	2.116	3.082	6.2	19.7
5 1	15 1.15	+ 3 15.7	1.808	2.778	7.0	19.3	5 1	15 1.75	- 5 56.3	2.109	3.103	3.7	19.5
5 11	14 53.11	+ 4 10.7	1.823	2.783	8.0	19.4	5 11	14 52.80	- 6 2.6	2.131	3.124	4.1	19.6
5 21	14 45.56	+ 4 44.7	1.864	2.789	10.4	19.5	5 21	14 44.36	- 6 17.1	2.181	3.144	6.8	19.8
5 31	14 39.29	+ 4 56.1	1.928	2.794	13.1	19.7	5 31	14 37.17	- 6 40.8	2.257	3.165	9.7	20.0
6 10	14 34.86	+ 4 45.8	2.012	2.799	15.5	19.9	6 10	14 31.72	- 7 13.6	2.357	3.185	12.3	20.2
52753	1998 KG ₅₆		5 6.9 67°02	22°3/ 23.5 18			353819	2012 TN ₃₁₂		5 6.9 245°12	4°1/ 3.5 18		
4 1	15 27.56	+27 4.3	1.122	1.916	23.9	18.2	4 1	15 20.52	- 5 57.9	2.388	3.222	11.4	21.5
4 11	15 22.44	+29 18.3	1.101	1.922	22.8	18.1	4 11	15 15.72	- 5 11.5	2.294	3.206	8.8	21.3
4 21	15 13.87	+30 51.7	1.094	1.928	22.3	18.1	4 21	15 9.16	- 4 24.4	2.225	3.190	6.1	21.1
5 1	15 3.09	+31 31.3	1.102	1.934	22.4	18.1	5 1	15 1.36	- 3 40.5	2.184	3.173	4.2	21.0
5 11	14 51.85	+31 11.2	1.125	1.941	23.2	18.2	5 11	14 53.03	- 3 4.1	2.170	3.155	4.9	21.0
5 21	14 41.82	+29 53.5	1.161	1.947	24.5	18.3	5 21	14 44.94	- 2 38.7	2.185	3.137	7.5	21.1
5 31	14 34.30	+27 46.6	1.210	1.954	25.9	18.4	5 31	14 37.83	- 2 26.9	2.225	3.118	10.5	21.3
6 10	14 29.99	+25 2.5	1.270	1.961	27.3	18.6	6 10	14 32.28	- 2 29.5	2.288	3.099	13.2	21.4
440544	2005 UU ₂₁₈		5 6.9 275°14	0°6/ 7.5 18			193291	2000 SU ₂₃₆		5 6.9 155°83	1°3/ 5.2 18 R		
4 1	15 18.78	-22 19.8	2.482	3.295	11.7	21.7	4 1	15 14.30	-12 0.7	4.257	5.079	7.0	21.7
4 11	15 14.49	-21 36.1	2.371	3.272	9.0	21.5	4 11	15 10.24	-11 29.2	4.177	5.086	5.2	21.6
4 21	15 8.40	-20 40.0	2.284	3.248	5.9	21.2	4 21	15 5.30	-10 55.6	4.124	5.094	3.3	21.4
5 1	15 1.05	-19 33.2	2.224	3.225	2.5	20.9	5 1	14 59.80	-10 21.7	4.100	5.100	1.6	21.3
5 11	14 53.15	-18 19.1	2.193	3.201	1.4	20.8	5 11	14 54.13	- 9 49.3	4.107	5.107	1.8	21.3
5 21	14 45.48	-17 2.4	2.191	3.176	5.0	21.0	5 21	14 48.64	- 9 20.1	4.144	5.113	3.6	21.5
5 31	14 38.81	-15 48.4	2.218	3.152	8.5	21.2	5 31	14 43.71	- 8 56.0	4.209	5.118	5.5	21.6
6 10	14 33.72	-14 42.2	2.269	3.127	11.7	21.4	6 10	14 39.62	- 8 38.0	4.300	5.124	7.2	21.7
508660	2017 UV ₂		5 6.9 252°94	6°0/ 10.3 18			88791	2001 SZ ₁₁₀		5 6.9 264°27	3°9/ 8.8 17		
4 1	15 27.40	-32 23.7	2.068	2.840	15.1	21.6	4 1	15 27.39	-25 31.9	1.598	2.412	17.0	19.8
4 11	15 21.84	-33 12.6	1.964	2.824	12.6	21.4	4 11	15 22.40	-26 2.7	1.497	2.392	13.7	19.6
4 21	15 13.55	-33 47.1	1.881	2.807	9.7	21.2	4 21	15 14.23	-26 20.3	1.416	2.372	9.7	19.3
5 1	15 3.14	-34 3.5	1.823	2.790	7.1	21.0	5 1	15 3.51	-26 21.7	1.359	2.351	5.7	19.0
5 11	14 51.65	-34 0.0	1.791	2.773	6.0	20.9	5 11	14 51.47	-26 6.5	1.327	2.329	4.1	18.8
5 21	14 40.33	-33 37.7	1.785	2.755	7.5	20.9	5 21	14 39.59	-25 37.3	1.322	2.307	7.6	19.0
5 31	14 30.43	-33 1.4	1.806	2.737	10.4	21.0	5 31	14 29.40	-25 0.1	1.341	2.285	12.1	19.2
6 10	14 22.91	-32 18.0	1.850	2.718	13.5	21.2	6 10	14 22.02	-24 22.8	1.381	2.262	16.5	19.4
433027	2012 SM ₅		5 6.9 306°97	6°3/ 9.8 17			420118	2011 FJ ₂₃		5 6.9 24°25	6°8/ 4.4 15		
4 1	15 24.87	-30 5.0	1.721	2.519	16.6	20.5	4 1	15 22.99	- 1 34.8	1.270	2.132	17.6	20.0
4 11	15 20.41	-31 8.0	1.621	2.499	13.8	20.2	4 11	15 18.54	- 1 20.3	1.220	2.144	13.8	19.8
4 21	15 12.92	-31 57.8	1.541	2.480	10.5	20.0	4 21	15 11.28	- 1 14.1	1.191	2.157	9.8	19.6
5 1	15 2.98	-32 29.8	1.485	2.460	7.5	19.8	5 1	15 2.17	- 1 21.7	1.184	2.171	7.1	19.5
5 11	14 51.75	-32 41.4	1.453	2.441	6.4	19.6	5 11	14 52.55	- 1 47.0	1.200	2.187	7.7	19.5
5 21	14 40.64	-32 33.4	1.447	2.423	8.3	19.7	5 21	14 43.75	- 2 30.9	1.241	2.203	10.9	19.8
5 31	14 31.10	-32 10.3	1.465	2.404	11.7	19.8	5 31	14 36.88	- 3 32.2	1.303	2.220	14.6	20.0
6 10	14 24.25	-31 39.4	1.505	2.386	15.3	20.0	6 10	14 32.67	- 4 47.7	1.385	2.239	18.0	20.3
102103	1999 RA ₁₆₁		5 6.9 302°73	3°8/ 8.7 18			501206	2013 TZ ₁₃₆		5 6.9 150°31	2°1/ 5.1 17		
4 1	15 24.15	-24 39.8	1.445	2.274	17.7	19.8	4 1	15 20.46	-14 47.1	2.044	2.880	13.0	21.3
4 11	15 20.00	-25 13.9	1.357	2.262	14.1	19.5	4 11	15 15.80	-13 39.0	1.969	2.886	9.8	21.1
4 21	15 12.66	-25 34.6	1.289	2.250	9.9	19.3	4 21	15 9.21	-12 22.7	1.918	2.891	6.2	20.9
5 1	15 2.86	-25 39.3	1.244	2.238	5.6	19.0	5 1	15 1.35	-11 2.7	1.894	2.895	2.7	20.7
5 11	14 51.88	-25 28.2	1.223	2.226	4.0	18.8	5 11	14 53.09	- 9 44.8	1.898	2.900	3.2	20.7
5 21	14 41.24	-25 4.3	1.227	2.215	7.7	19.0	5 21	14 45.31	- 8 34.6	1.931	2.904	6.8	21.0
5 31	14 32.44	-24 33.8	1.254	2.204	12.3	19.2	5 31	14 38.79	- 7 37.0	1.990	2.907	10.3	21.2
6 10	14 26.54	-24 4.2	1.303	2.193	16.6	19.5	6 10	14 34.10	- 6 55.1	2.072	2.911	13.4	21.4
270392	2002 AT ₁₄₇		5 6.9 122°75	6°7/ 11.7 17			392666	2011 UV ₂₉₀		5 6.9 222°43	4°2/ 3.3 18		
4 1	15 25.63	-35 30.3	1.955										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
145037	2005 <i>EC</i> ₂₉₁		5 6.9 301°32	5°8/ 3.7 17			291485	2006 <i>DU</i> ₁₀₃		5 6.9 224°87	1°1/ 8.5 18		
4 1	15 21.45	- 5 55.4	1.451	2.310	16.0	19.8	4 1	15 13.01	-23 23.5	4.655	5.449	6.9	20.8
4 11	15 17.46	- 5 6.3	1.373	2.298	12.5	19.5	4 11	15 9.33	-23 21.0	4.560	5.447	5.4	20.7
4 21	15 10.76	- 4 16.6	1.316	2.286	8.7	19.3	4 21	15 4.78	-23 13.2	4.490	5.445	3.6	20.6
5 1	15 2.08	- 3 32.8	1.282	2.274	5.9	19.1	5 1	14 59.65	-23 0.6	4.448	5.443	1.9	20.4
5 11	14 52.56	- 3 1.7	1.273	2.262	6.9	19.1	5 11	14 54.30	-22 44.1	4.436	5.441	1.2	20.4
5 21	14 43.47	- 2 48.3	1.288	2.251	10.6	19.3	5 21	14 49.10	-22 25.1	4.454	5.439	2.7	20.5
5 31	14 35.99	- 2 55.7	1.326	2.240	14.7	19.5	5 31	14 44.40	-22 5.3	4.501	5.437	4.5	20.6
6 10	14 30.98	- 3 24.0	1.383	2.229	18.4	19.7	6 10	14 40.49	-21 46.4	4.574	5.434	6.2	20.8
416018	2002 <i>CO</i> ₁₆₉		5 6.9 23°04	13°4/28.3 18			150623	2000 <i>YF</i> ₁₁₀		5 6.9 190°30	3°3/ 9.9 18		
4 1	15 17.88	+10 32.2	1.325	2.176	17.8	19.5	4 1	15 20.49	-29 32.9	2.765	3.543	11.5	20.7
4 11	15 14.53	+12 20.7	1.290	2.185	15.4	19.4	4 11	15 15.64	-29 38.0	2.672	3.542	9.3	20.5
4 21	15 8.66	+13 49.8	1.275	2.196	13.8	19.3	4 21	15 9.07	-29 31.2	2.602	3.541	6.8	20.3
5 1	15 1.16	+14 49.0	1.281	2.209	13.4	19.3	5 1	15 1.34	-29 11.7	2.559	3.540	4.4	20.2
5 11	14 53.28	+15 11.3	1.308	2.222	14.5	19.4	5 11	14 53.15	-28 40.9	2.543	3.538	3.3	20.1
5 21	14 46.15	+14 55.4	1.354	2.236	16.4	19.6	5 21	14 45.27	-28 1.1	2.556	3.537	4.8	20.2
5 31	14 40.78	+14 4.2	1.418	2.251	18.6	19.8	5 31	14 38.41	-27 16.3	2.597	3.534	7.3	20.3
6 10	14 37.75	+12 44.0	1.498	2.267	20.7	20.0	6 10	14 33.11	-26 30.8	2.663	3.532	9.8	20.5
3364	Zdenka		5 6.9 334°09	5°5/ 4.1 18 R			471358	2011 <i>RZ</i> ₁₁		5 6.9 188°13	2°7/ 9.4 18		
4 1	15 19.58	- 9 3.9	1.145	2.020	18.3	16.2	4 1	15 21.72	-27 26.7	2.983	3.763	10.7	22.0
4 11	15 16.58	- 8 3.1	1.076	2.012	14.1	15.9	4 11	15 16.42	-27 36.6	2.888	3.762	8.5	21.9
4 21	15 10.44	- 6 57.0	1.027	2.004	9.4	15.6	4 21	15 9.52	-27 36.5	2.817	3.761	6.1	21.7
5 1	15 2.00	- 5 53.4	1.000	1.998	5.8	15.4	5 1	15 1.50	-27 26.0	2.773	3.759	3.7	21.5
5 11	14 52.64	- 5 1.4	0.996	1.991	6.9	15.4	5 11	14 53.05	-27 6.0	2.758	3.757	2.7	21.5
5 21	14 43.87	- 4 28.5	1.014	1.986	11.4	15.6	5 21	14 44.86	-26 38.6	2.773	3.754	4.4	21.6
5 31	14 37.09	- 4 19.5	1.052	1.981	16.2	15.9	5 31	14 37.60	-26 6.8	2.816	3.751	6.9	21.7
6 10	14 33.20	- 4 35.1	1.108	1.977	20.4	16.1	6 10	14 31.80	-25 34.5	2.884	3.747	9.3	21.9
497353	2005 <i>UH</i> ₁₈₃		5 6.9 145°58	0°8/ 7.5 17			241700	2000 <i>SV</i> ₁₇₅		5 6.9 242°20	1°7/ 8.1 17		
4 1	15 22.94	-21 12.1	2.046	2.864	13.6	22.4	4 1	15 23.86	-23 47.0	1.715	2.536	15.7	19.9
4 11	15 17.79	-20 51.1	1.968	2.872	10.5	22.2	4 11	15 19.17	-23 25.1	1.621	2.524	12.3	19.6
4 21	15 10.54	-20 19.1	1.913	2.879	6.8	22.0	4 21	15 11.81	-22 47.1	1.548	2.512	8.3	19.3
5 1	15 1.88	-19 37.6	1.885	2.886	2.8	21.8	5 1	15 2.50	-21 53.7	1.500	2.499	3.9	19.0
5 11	14 52.76	-18 50.0	1.884	2.892	1.6	21.7	5 11	14 52.35	-20 48.3	1.478	2.486	2.2	18.9
5 21	14 44.12	-18 0.6	1.912	2.898	5.6	22.0	5 21	14 42.60	-19 36.9	1.484	2.472	6.6	19.1
5 31	14 36.84	-17 14.5	1.966	2.903	9.3	22.2	5 31	14 34.41	-18 26.9	1.515	2.458	11.1	19.3
6 10	14 31.53	-16 36.1	2.044	2.908	12.6	22.4	6 10	14 28.65	-17 25.7	1.568	2.443	15.1	19.6
185420	2006 <i>WC</i> ₁₉₁		5 6.9 230°37	1°5/ 5.9 17			375284	2008 <i>KJ</i> ₂₀		5 6.9 355°73	3°6/ 4.8 17		
4 1	15 22.38	-15 21.9	1.811	2.649	14.3	21.3	4 1	15 20.22	-10 50.5	1.501	2.359	15.7	21.2
4 11	15 17.69	-14 46.5	1.725	2.642	10.9	21.1	4 11	15 16.35	-10 6.2	1.430	2.357	11.9	21.0
4 21	15 10.67	-14 2.8	1.662	2.635	6.9	20.8	4 21	15 9.93	- 9 17.0	1.381	2.356	7.7	20.7
5 1	15 1.99	-13 13.8	1.624	2.627	2.7	20.5	5 1	15 1.74	- 8 28.0	1.355	2.355	4.1	20.5
5 11	14 52.66	-12 24.2	1.614	2.619	2.8	20.5	5 11	14 52.91	- 7 45.5	1.356	2.355	4.8	20.5
5 21	14 43.72	-11 39.1	1.631	2.611	7.0	20.8	5 21	14 44.61	- 7 14.6	1.381	2.355	8.8	20.8
5 31	14 36.18	-11 3.5	1.673	2.602	11.2	21.0	5 31	14 37.91	- 6 59.6	1.429	2.355	12.9	21.0
6 10	14 30.77	-10 40.9	1.737	2.593	14.8	21.2	6 10	14 33.56	- 7 1.9	1.498	2.355	16.6	21.2
232886	2004 <i>XD</i> ₈		5 6.9 65°09	2°3/ 5.4 18			120237	2004 <i>FQ</i> ₈₅		5 6.9 304°72	2°7/ 9.0 18		
4 1	15 21.27	-12 47.2	1.753	2.598	14.4	20.2	4 1	15 21.35	-31 44.0	1.039	1.876	22.6	19.0
4 11	15 16.61	-12 11.0	1.694	2.614	10.8	20.0	4 11	15 18.59	-30 6.1	0.961	1.870	18.1	18.7
4 21	15 9.79	-11 29.9	1.657	2.630	6.8	19.8	4 21	15 11.98	-27 43.4	0.900	1.864	12.6	18.4
5 1	15 1.58	-10 47.7	1.645	2.647	3.1	19.6	5 1	15 2.63	-24 37.4	0.860	1.858	6.3	18.0
5 11	14 52.99	-10 9.2	1.661	2.663	3.4	19.7	5 11	14 52.33	-21 0.6	0.845	1.852	3.1	17.8
5 21	14 45.00	- 9 38.6	1.703	2.679	7.2	19.9	5 21	14 43.01	-17 15.0	0.854	1.847	9.0	18.1
5 31	14 38.49	- 9 19.3	1.770	2.696	10.9	20.2	5 31	14 36.26	-13 45.0	0.887	1.842	15.3	18.4
6 10	14 34.05	- 9 13.3	1.859	2.712	14.1	20.4	6 10	14 32.99	-10 48.8	0.941	1.837	20.9	18.7
340289	2006 <i>BB</i> ₂₈₀		5 6.9 261°21	2°8/ 2.8 18			7240	Hasebe		5 6.9 178°41	1°9/ 8.1 18		
4 1	15 11.86	- 2 53.5	4.473	5.302	6.6	21.1	4 1	15 26.65	-22 41.6	1.915	2.727	14.7	18.5
4 11	15 8.43	- 2 23.0	4.388	5.294	5.1	21.0	4 11	15 20.91	-22 47.4	1.831	2.728	11.4	18.3
4 21	15 4.19	- 1 53.9	4.330	5.287	3.7	20.8	4 21	15 12.72	-22 41.8	1.769	2.730	7.7	18.1
5 1	14 59.41	- 1 28.3	4.300	5.279	2.8	20.8	5 1	15 2.79	-22 24.6	1.733	2.731	3.7	17.8
5 11	14 54.44	- 1 7.8	4.299	5.272	3.3	20.8	5 11	14 52.19	-21 57.8	1.724	2.731	2.3	17.7
5 21	14 49.61	- 0 54.0	4.326	5.264	4.6	20.9	5 21	14 42.04	-21 24.8	1.744	2.730	6.0	18.0
5 31	14 45.24	- 0 47.9	4.381	5.256	6.1	21.0	5 31	14 33.39	-20 50.8	1.790	2.729	9.9	18.2
6 10	14 41.62	- 0 49.9	4.460	5.248	7.6	21.1	6 10	14 27.00	-20 20.8	1.859	2.727	13.4	18.4
465161	2007 <i>DX</i> ₄₁		5 6.9 58°84	8°4/ 1.5 17			522727	2016 <i>LY</i> ₆₂		5 6.9 91°23	5°9/ 1.5 17		
4 1	15 20.75	+ 0 55.9	1.569	2.421	15.4	20.4	4 1	15 17.57	- 2 7.8	2.199	3.043	11.9	21.6
4 11	15 16.35	+ 2 17.1	1.520	2.433	12.3	20.3	4 11	15 13.46	- 0 45.8	2.135	3.047	9.3	21.5
4 21	15 9.68	+ 3 31.2	1.493	2.445	9.6	20.1	4 21	15 7.68	+ 0 34.1	2.096	3.052	7.0	21.3
5 1	15 1.55	+ 4 30.2	1.490	2.458	8.4	20.1	5 1	15 0.80	+ 1 46.0	2.083	3.057	5.9	21.3
5 11	14 53.03	+ 5 7.4	1.511	2.471	9.4	20.2	5 11	14 53.58	+ 2 44.5	2.098	3.061	6.8	21.3
5 21	14 45.16	+ 5 19.4	1.556	2.483	11.9	20.4	5 21	14 46.76	+ 3 25.5	2.138	3.066	9.1	21.5
5 31	14 38.87	+ 5 6.1	1.623	2.496	14.7	20.6	5 31	14 41.02	+ 3 47.2	2.203	3.071	11.6	21.7
6 10	14 34.75	+ 4 29.8	1.709	2.509	17.4	20.8	6 10	14 36.87	+ 3 49.5	2.289	3.075	13.9	21.8
384832	2012 <i>RD</i> ₃₁		5 6.9 214°09	2°4/ 5.1 17			204934	2008 <i>UO</i> ₉₉		5 6.9 298°26	4°0/ 5.0 18		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
330832	2009 <i>FG</i> ₃₀		5 6.9 150°44	9°0/29.9 18			341608	2007 <i>UD</i> ₁₂₄		5 6.9 308°53	0°4/ 6.7 17		
4 1	15 25.01	- 5 36.8	1.268	2.129	17.8	20.7	4 1	15 18.53	-19 2.6	1.938	2.773	13.6	20.6
4 11	15 20.13	- 2 42.2	1.213	2.136	13.9	20.5	4 11	15 14.66	-18 19.8	1.852	2.766	10.4	20.4
4 21	15 12.34	+ 0 17.6	1.180	2.143	10.4	20.3	4 21	15 8.69	-17 25.7	1.788	2.760	6.6	20.2
5 1	15 2.64	+ 3 7.2	1.174	2.150	9.0	20.2	5 1	15 1.28	-16 22.9	1.750	2.753	2.5	19.9
5 11	14 52.40	+ 5 31.1	1.193	2.155	10.9	20.3	5 11	14 53.31	-15 16.3	1.740	2.747	1.9	19.8
5 21	14 42.98	+ 7 18.7	1.236	2.160	14.5	20.5	5 21	14 45.73	-14 11.4	1.757	2.741	6.2	20.1
5 31	14 35.58	+ 8 25.5	1.300	2.164	18.2	20.8	5 31	14 39.43	-13 13.8	1.799	2.735	10.1	20.3
6 10	14 30.89	+ 8 53.7	1.380	2.168	21.3	21.0	6 10	14 35.05	-12 28.0	1.865	2.729	13.5	20.5
85616	1998 <i>HA</i> ₄₂		5 6.9 306°31	3°6/ 3.8 17			250563	2004 <i>RG</i> ₃₀₅		5 6.9 266°36	2°7/ 4.4 16		
4 1	15 17.02	- 9 28.3	2.094	2.941	12.3	19.3	4 1	15 17.08	-10 44.4	2.450	3.288	11.0	21.1
4 11	15 13.30	- 8 26.6	2.009	2.930	9.3	19.1	4 11	15 13.06	- 9 51.4	2.364	3.281	8.3	20.9
4 21	15 7.73	- 7 20.7	1.948	2.919	6.2	18.9	4 21	15 7.45	- 8 54.4	2.303	3.274	5.4	20.7
5 1	15 0.88	- 6 15.5	1.914	2.909	3.8	18.7	5 1	15 0.76	- 7 57.2	2.270	3.267	3.0	20.6
5 11	14 53.53	- 5 16.3	1.907	2.899	4.6	18.7	5 11	14 53.66	- 7 3.9	2.265	3.260	3.6	20.6
5 21	14 46.51	- 4 27.9	1.927	2.888	7.7	18.9	5 21	14 46.86	- 6 18.6	2.288	3.253	6.4	20.7
5 31	14 40.57	- 3 54.0	1.972	2.879	10.9	19.1	5 31	14 41.01	- 5 44.4	2.337	3.246	9.4	20.9
6 10	14 36.32	- 3 36.6	2.038	2.869	13.9	19.2	6 10	14 36.62	- 5 23.4	2.410	3.239	12.0	21.1
191864	2004 <i>XV</i> ₂₂		5 6.9 202°84	0°5/ 6.6 17			299783	2006 <i>SV</i> ₇₄		5 6.9 258°92	3°1/ 4.3 17		
4 1	15 21.81	-17 9.1	2.496	3.315	11.4	21.7	4 1	15 18.13	-10 17.1	2.263	3.104	11.7	21.2
4 11	15 16.64	-16 42.6	2.404	3.310	8.7	21.5	4 11	15 14.00	- 9 22.0	2.178	3.095	8.9	21.0
4 21	15 9.73	-16 9.1	2.336	3.305	5.5	21.3	4 21	15 8.11	- 8 22.9	2.116	3.087	5.8	20.8
5 1	15 1.62	-15 30.3	2.296	3.299	2.1	21.0	5 1	15 1.03	- 7 23.7	2.082	3.079	3.3	20.7
5 11	14 53.04	-14 49.3	2.285	3.292	1.7	21.0	5 11	14 53.49	- 6 29.3	2.076	3.070	4.0	20.7
5 21	14 44.77	-14 9.5	2.304	3.284	5.2	21.2	5 21	14 46.26	- 5 43.8	2.097	3.062	7.0	20.9
5 31	14 37.52	-13 34.6	2.350	3.276	8.5	21.4	5 31	14 40.07	- 5 10.9	2.145	3.053	10.1	21.0
6 10	14 31.87	-13 7.5	2.420	3.268	11.4	21.6	6 10	14 35.47	- 4 52.3	2.215	3.044	12.9	21.2
58386	1995 <i>SM</i> ₅₃		5 6.9 236°88	0°8/ 6.5 17			295109	2008 <i>FO</i> ₂		5 6.9 320°21	3°5/ 3.9 17		
4 1	15 24.25	-17 48.5	1.580	2.419	16.0	20.0	4 1	15 17.25	- 8 49.6	2.232	3.075	11.7	21.1
4 11	15 19.55	-17 11.0	1.492	2.408	12.3	19.7	4 11	15 13.31	- 7 53.7	2.153	3.072	8.9	20.9
4 21	15 12.11	-16 21.2	1.425	2.398	7.9	19.4	4 21	15 7.66	- 6 55.1	2.099	3.069	5.9	20.7
5 1	15 2.64	-15 21.8	1.383	2.386	3.0	19.1	5 1	15 0.85	- 5 58.2	2.072	3.066	3.7	20.6
5 11	14 52.32	-14 18.1	1.367	2.374	2.5	19.0	5 11	14 53.63	- 5 7.6	2.072	3.063	4.4	20.6
5 21	14 42.42	-13 16.7	1.378	2.361	7.6	19.3	5 21	14 46.75	- 4 27.4	2.100	3.061	7.2	20.8
5 31	14 34.16	-12 24.5	1.413	2.348	12.4	19.5	5 31	14 40.92	- 4 0.8	2.153	3.058	10.2	20.9
6 10	14 28.39	-11 46.8	1.470	2.335	16.5	19.8	6 10	14 36.68	- 3 49.0	2.229	3.056	13.0	21.1
479072	2013 <i>AC</i> ₈₇		5 6.9 327°55	8°7/30.7 17			504363	2007 <i>UL</i> ₉₃		5 6.9 157°66	1°1/ 7.7 17		
4 1	15 19.77	+ 7 24.8	2.058	2.887	13.2	20.2	4 1	15 23.84	-19 37.4	2.163	2.981	13.0	21.4
4 11	15 15.34	+ 8 15.7	1.989	2.878	11.1	20.1	4 11	15 18.52	-19 56.8	2.079	2.982	10.0	21.2
4 21	15 8.99	+ 8 56.2	1.941	2.870	9.3	20.0	4 21	15 11.10	-20 9.1	2.018	2.983	6.6	21.0
5 1	15 1.35	+ 9 20.1	1.919	2.862	8.7	19.9	5 1	15 2.20	-20 14.4	1.983	2.983	2.9	20.8
5 11	14 53.24	+ 9 23.2	1.921	2.854	9.5	19.9	5 11	14 52.71	-20 13.8	1.977	2.984	1.7	20.7
5 21	14 45.50	+ 9 3.3	1.947	2.847	11.3	20.0	5 21	14 43.56	-20 9.4	1.999	2.985	5.4	20.9
5 31	14 38.93	+ 8 20.7	1.997	2.840	13.6	20.2	5 31	14 35.65	-20 4.2	2.048	2.986	8.9	21.1
6 10	14 34.12	+ 7 18.0	2.065	2.833	15.8	20.3	6 10	14 29.65	-20 1.7	2.121	2.986	12.1	21.3
105364	2000 <i>QM</i> ₁₁₆		5 6.9 162°49	2°0/ 8.2 18			42684	1998 <i>HQ</i> ₁₅₀		5 6.9 85°48	2°3/ 5.7 18		
4 1	15 27.92	-23 1.8	2.003	2.808	14.3	20.9	4 1	15 24.90	-13 28.0	1.490	2.337	16.3	19.7
4 11	15 21.73	-23 7.8	1.921	2.815	11.2	20.7	4 11	15 19.73	-12 54.8	1.432	2.354	12.3	19.5
4 21	15 13.16	-23 2.5	1.863	2.822	7.5	20.4	4 21	15 11.96	-12 15.3	1.397	2.371	7.8	19.3
5 1	15 2.96	-22 45.6	1.830	2.827	3.7	20.2	5 1	15 2.50	-11 33.7	1.385	2.387	3.3	19.0
5 11	14 52.15	-22 19.0	1.826	2.832	2.3	20.1	5 11	14 52.58	-10 55.2	1.400	2.404	3.5	19.1
5 21	14 41.84	-21 46.3	1.851	2.836	5.8	20.4	5 21	14 43.42	-10 24.8	1.441	2.420	7.9	19.4
5 31	14 33.01	-21 12.2	1.902	2.839	9.6	20.6	5 31	14 36.07	-10 6.6	1.506	2.436	12.1	19.7
6 10	14 26.39	-20 41.8	1.978	2.842	12.9	20.8	6 10	14 31.19	-10 2.7	1.593	2.452	15.7	19.9
16990	1999 <i>CS</i> ₁		5 6.9 348°01	4°8/ 4.9 18			483816	2005 <i>WO</i> ₁₁₃		5 6.9 263°26	10°1/13.9 18		
4 1	15 21.19	- 8 6.1	1.128	2.001	18.6	17.0	4 1	15 26.45	-41 20.6	1.197	1.976	23.5	20.3
4 11	15 17.90	- 7 43.5	1.061	1.995	14.3	16.7	4 11	15 22.97	-41 24.0	1.108	1.964	20.4	20.0
4 21	15 11.35	- 7 20.4	1.013	1.989	9.5	16.4	4 21	15 15.16	-40 48.4	1.035	1.951	16.6	19.7
5 1	15 2.41	- 7 2.6	0.986	1.985	5.4	16.2	5 1	15 4.02	-39 25.3	0.979	1.939	12.8	19.4
5 11	14 52.50	- 6 56.0	0.982	1.981	6.1	16.2	5 11	14 51.47	-37 12.7	0.945	1.926	10.3	19.3
5 21	14 43.19	- 7 5.1	1.001	1.979	10.6	16.5	5 21	14 39.78	-34 18.8	0.934	1.912	11.1	19.2
5 31	14 35.92	- 7 32.3	1.040	1.977	15.5	16.7	5 31	14 30.93	-31 2.1	0.945	1.899	14.8	19.4
6 10	14 31.66	- 8 17.4	1.097	1.976	19.9	17.0	6 10	14 26.09	-27 45.3	0.978	1.885	19.3	19.6
211802	2004 <i>DG</i> ₁		5 6.9 36°51	9°2/13.5 18			20798	<i>Verlinden</i>		5 6.9 286°51	0°4/ 6.8 18		
4 1	15 26.11	-41 28.6	2.018	2.749	16.6	20.0	4 1	15 25.00	-15 45.3	1.491	2.335	16.5	18.3
4 11	15 21.06	-42 35.1	1.940	2.754	14.5	19.9	4 11	15 20.44	-15 53.9	1.401	2.320	12.7	18.0
4 21	15 13.12	-43 21.0	1.881	2.760	12.3	19.7	4 21	15 12.89	-15 56.1	1.331	2.304	8.2	17.7
5 1	15 3.04	-43 41.4	1.843	2.766	10.3	19.6	5 1	15 3.05	-15 53.1	1.285	2.289	3.1	17.4
5 11	14 52.06	-43 34.1	1.829	2.772	9.2	19.5	5 11	14 52.10	-15 47.2	1.266	2.273	2.3	17.3
5 21	14 41.57	-43 0.8	1.840	2.779	9.6	19.6	5 21	14 41.44	-15 41.9	1.271	2.258	7.7	17.5
5 31	14 32.84	-42 7.2	1.874	2.786	11.2	19.7	5 31	14 32.44	-15 41.3	1.301	2.243	12.7	17.8
6 10	14 26.78	-41 1.6	1.931	2.793	13.3	19.8	6 10	14 26.11	-15 49.2	1.352	2.227	17.0	18.0
204717	2006 <i>GQ</i> ₂₅		5 6.9 264°08	0°2/ 6.8 17			45628	2000 <i>DD</i> ₉₉		5 6.9 180°26	0°4		

EPHEMERIDES

5 6.9

5 6.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
83493	2001 <i>SN</i> ₁₁₁		5 6.9 247°88	3°7/ 9.8 18			62643	2000 <i>SH</i> ₃₆₀		5 6.9 178°71	6°6/30.9 18		
4 1	15 22.83	-29 11.5	2.565	3.344	12.3	19.3	4 1	15 19.52	+ 5 0.1	2.628	3.450	10.8	19.8
4 11	15 17.71	-29 32.0	2.460	3.330	10.0	19.1	4 11	15 14.71	+ 5 52.7	2.561	3.451	8.9	19.6
4 21	15 10.61	-29 40.7	2.377	3.316	7.3	18.9	4 21	15 8.41	+ 6 38.3	2.519	3.451	7.3	19.5
5 1	15 2.05	-29 36.3	2.321	3.302	4.8	18.7	5 1	15 1.14	+ 7 12.4	2.503	3.452	6.6	19.5
5 11	14 52.83	-29 19.1	2.293	3.287	3.7	18.6	5 11	14 53.55	+ 7 31.4	2.514	3.452	7.3	19.5
5 21	14 43.81	-28 50.9	2.293	3.271	5.4	18.7	5 21	14 46.29	+ 7 33.3	2.552	3.452	9.0	19.6
5 31	14 35.85	-28 15.7	2.320	3.256	8.1	18.9	5 31	14 39.96	+ 7 17.8	2.614	3.451	10.9	19.8
6 10	14 29.63	-27 38.1	2.372	3.240	10.9	19.0	6 10	14 35.04	+ 6 45.9	2.696	3.450	12.8	19.9
361168	2006 <i>KS</i> ₈₁		5 6.9 325°60	6°2/ 3.8 17			497924	2006 <i>VV</i> ₁₀₇		5 6.9 135°13	0°5/ 6.6 17		
4 1	15 20.95	- 5 53.2	1.287	2.154	17.2	20.3	4 1	15 21.92	-15 11.1	2.985	3.799	9.9	22.2
4 11	15 17.37	- 5 1.2	1.216	2.145	13.4	20.1	4 11	15 16.37	-15 8.9	2.909	3.813	7.5	22.1
4 21	15 10.86	- 4 8.9	1.165	2.136	9.3	19.8	4 21	15 9.40	-15 2.9	2.858	3.826	4.7	21.9
5 1	15 2.23	- 3 23.4	1.136	2.128	6.4	19.6	5 1	15 1.51	-14 54.4	2.836	3.838	1.8	21.7
5 11	14 52.73	- 2 52.4	1.131	2.121	7.4	19.6	5 11	14 53.32	-14 44.9	2.844	3.850	1.4	21.7
5 21	14 43.75	- 2 41.3	1.149	2.114	11.3	19.8	5 21	14 45.45	-14 36.4	2.882	3.862	4.3	21.9
5 31	14 36.57	- 2 53.1	1.188	2.107	15.6	20.0	5 31	14 38.48	-14 30.9	2.948	3.873	7.1	22.1
6 10	14 32.06	- 3 27.2	1.246	2.101	19.5	20.3	6 10	14 32.85	-14 30.1	3.040	3.884	9.4	22.3
159074	2004 <i>TX</i> ₂₀₄		5 6.9 244°79	0°2/ 7.2 18			406436	2007 <i>TS</i> ₂₆₂		5 6.9 140°53	0°0/ 6.7 16		
4 1	15 23.16	-18 39.2	2.201	3.021	12.7	20.5	4 1	15 25.21	-18 40.8	1.778	2.606	14.9	22.5
4 11	15 18.07	-18 31.4	2.100	3.006	9.8	20.2	4 11	15 19.79	-18 18.1	1.705	2.615	11.4	22.2
4 21	15 10.89	-18 15.5	2.023	2.990	6.4	20.0	4 21	15 11.98	-17 45.2	1.654	2.624	7.3	22.0
5 1	15 2.17	-17 52.6	1.972	2.974	2.5	19.7	5 1	15 2.57	-17 4.3	1.630	2.632	2.8	21.8
5 11	14 52.77	-17 25.0	1.950	2.957	1.6	19.6	5 11	14 52.62	-16 19.2	1.633	2.640	1.9	21.7
5 21	14 43.60	-16 56.0	1.956	2.940	5.6	19.8	5 21	14 43.25	-15 35.0	1.663	2.648	6.4	22.0
5 31	14 35.57	-16 29.4	1.989	2.923	9.4	20.0	5 31	14 35.45	-14 56.7	1.719	2.654	10.5	22.3
6 10	14 29.39	-16 9.1	2.046	2.905	12.7	20.2	6 10	14 29.90	-14 28.5	1.798	2.661	14.1	22.5
24968	Chernyakhovsky		5 6.9 10°35	4°5/ 4.7 18			290367	2005 <i>SR</i> ₂₆₉		5 6.9 271°81	0°1/ 7.1 18		
4 1	15 21.95	- 8 53.9	1.281	2.146	17.4	17.8	4 1	15 21.78	-17 6.7	2.351	3.173	11.9	20.3
4 11	15 18.03	- 8 16.1	1.217	2.147	13.3	17.6	4 11	15 16.86	-17 14.3	2.255	3.162	9.1	20.1
4 21	15 11.20	- 7 36.0	1.173	2.148	8.8	17.3	4 21	15 10.04	-17 16.5	2.183	3.151	5.9	19.9
5 1	15 2.32	- 6 59.4	1.151	2.149	5.0	17.1	5 1	15 1.85	-17 14.1	2.138	3.140	2.3	19.6
5 11	14 52.71	- 6 32.6	1.154	2.152	5.7	17.1	5 11	14 53.06	-17 8.7	2.122	3.129	1.5	19.5
5 21	14 43.74	- 6 20.6	1.180	2.154	9.9	17.4	5 21	14 44.50	-17 2.4	2.134	3.118	5.2	19.7
5 31	14 36.66	- 6 26.5	1.229	2.157	14.4	17.6	5 31	14 36.98	-16 58.1	2.173	3.107	8.7	19.9
6 10	14 32.27	- 6 50.8	1.297	2.161	18.3	17.9	6 10	14 31.15	-16 58.3	2.236	3.096	11.8	20.1
507420	2012 <i>PG</i> ₃₀		5 6.9 303°67	4°8/ 3.9 17			469889	2005 <i>UF</i> ₅₁₈		5 6.9 252°25	4°9/ 2.2 16		
4 1	15 19.49	- 8 20.4	1.619	2.474	14.8	20.8	4 1	15 17.43	- 3 21.1	2.520	3.358	10.7	21.6
4 11	15 15.93	- 7 25.6	1.523	2.448	11.5	20.6	4 11	15 13.30	- 2 17.0	2.437	3.348	8.4	21.4
4 21	15 9.85	- 6 26.1	1.448	2.421	7.8	20.3	4 21	15 7.61	- 1 13.6	2.379	3.338	6.1	21.3
5 1	15 1.86	- 5 27.7	1.399	2.394	5.0	20.0	5 1	15 0.88	- 0 15.4	2.348	3.327	4.9	21.2
5 11	14 52.95	- 4 37.0	1.374	2.367	6.0	20.0	5 11	14 53.74	+ 0 33.0	2.345	3.316	5.7	21.2
5 21	14 44.25	- 4 0.2	1.375	2.340	9.8	20.2	5 21	14 46.86	+ 1 8.1	2.369	3.305	7.9	21.3
5 31	14 36.90	- 3 42.2	1.399	2.314	14.0	20.3	5 31	14 40.89	+ 1 27.6	2.419	3.294	10.4	21.5
6 10	14 31.78	- 3 44.9	1.443	2.288	17.8	20.5	6 10	14 36.32	+ 1 30.9	2.490	3.283	12.7	21.6
502840	2015 <i>DY</i> ₁₅₅		5 6.9 90°06	1°1/ 6.1 17			300058	2006 <i>US</i> ₁₈₄		5 6.9 248°27	2°5/ 9.1 18		
4 1	15 21.60	-17 30.3	1.924	2.756	13.8	21.3	4 1	15 19.95	-26 43.5	2.301	3.102	12.9	20.5
4 11	15 16.71	-16 34.8	1.862	2.776	10.4	21.1	4 11	15 15.55	-26 31.2	2.209	3.097	10.2	20.3
4 21	15 9.82	-15 29.8	1.823	2.795	6.5	20.9	4 21	15 9.20	-26 5.4	2.140	3.093	7.1	20.1
5 1	15 1.66	-14 19.3	1.811	2.814	2.4	20.7	5 1	15 1.51	-25 26.5	2.097	3.089	4.0	19.9
5 11	14 53.20	-13 8.8	1.827	2.832	2.3	20.7	5 11	14 53.31	-24 36.7	2.081	3.084	2.6	19.8
5 21	14 45.34	-12 3.7	1.870	2.851	6.3	21.0	5 21	14 45.47	-23 39.9	2.093	3.080	5.1	20.0
5 31	14 38.90	-11 9.0	1.940	2.869	9.9	21.3	5 31	14 38.79	-22 41.2	2.133	3.075	8.4	20.2
6 10	14 34.39	-10 28.1	2.033	2.886	13.1	21.5	6 10	14 33.90	-21 45.8	2.197	3.070	11.4	20.3
415028	2011 <i>SF</i> ₁₈₇		5 6.9 329°37	5°6/ 8.9 17			286334	2001 <i>XB</i> ₁₃		5 6.9 164°40	3°4/10.3 18		
4 1	15 22.14	-25 13.6	1.085	1.935	20.8	20.1	4 1	15 22.18	-30 33.7	2.954	3.720	11.1	22.0
4 11	15 19.50	-26 15.0	1.005	1.921	16.9	19.8	4 11	15 16.83	-30 43.2	2.864	3.725	9.0	21.8
4 21	15 12.98	-27 2.1	0.943	1.907	12.2	19.5	4 21	15 9.83	-30 41.0	2.797	3.730	6.7	21.7
5 1	15 3.28	-27 30.2	0.900	1.893	7.5	19.2	5 1	15 1.72	-30 26.4	2.758	3.734	4.4	21.6
5 11	14 51.95	-27 36.8	0.880	1.881	5.8	19.1	5 11	14 53.19	-30 0.2	2.746	3.738	3.5	21.5
5 21	14 40.95	-27 24.2	0.880	1.870	9.5	19.2	5 21	14 44.99	-29 24.8	2.764	3.741	4.7	21.6
5 31	14 32.25	-26 59.5	0.902	1.860	14.7	19.4	5 31	14 37.77	-28 43.5	2.810	3.744	7.0	21.7
6 10	14 27.24	-26 32.5	0.941	1.851	19.6	19.7	6 10	14 32.08	-28 0.8	2.882	3.746	9.3	21.9
417588	2006 <i>VH</i> ₅₀		5 6.9 210°54	0°6/ 7.4 17			392685	2011 <i>VT</i> ₉		5 6.9 69°74	1°3/ 7.8 17		
4 1	15 24.13	-20 15.7	2.068	2.886	13.5	22.5	4 1	15 24.52	-19 43.4	2.306	3.118	12.5	20.9
4 11	15 18.86	-19 59.2	1.976	2.880	10.4	22.2	4 11	15 18.88	-20 14.6	2.228	3.127	9.6	20.7
4 21	15 11.39	-19 32.4	1.907	2.873	6.8	22.0	4 21	15 11.26	-20 39.4	2.174	3.136	6.3	20.6
5 1	15 2.35	-18 56.5	1.864	2.866	2.8	21.7	5 1	15 2.29	-20 57.6	2.146	3.145	2.9	20.3
5 11	14 52.69	-18 14.4	1.850	2.858	1.6	21.6	5 11	14 52.81	-21 9.6	2.148	3.155	1.8	20.3
5 21	14 43.37	-17 30.3	1.864	2.849	5.8	21.9	5 21	14 43.68	-21 17.1	2.178	3.164	5.0	20.5
5 31	14 35.35	-16 48.9	1.904	2.840	9.7	22.1	5 31	14 35.76	-21 22.5	2.236	3.173	8.4	20.7
6 10	14 29.33	-16 14.8	1.969	2.830	13.1	22.3	6 10	14 29.64	-21 28.6	2.319	3.182	11.3	20.9
371027	2005 <i>UL</i> ₇₈		5 6.9 21°75	0°9/ 7.5 17			247824	2003 <i>SD</i> ₁₈₇		5 6.9 307°77	4°4/ 3.7 1		

EPHEMERIDES

5 6.9

5 7.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
62333	2000 SE ₁₂₇		5 6.9 261°78	3°0/ 4.3 18			423451	2005 SV ₉₃		5 7.0 146°67	2°3/ 8.5 17		
4 1	15 17.88	-10 12.5	2.324	3.164	11.5	19.8	4 1	15 26.59	-23 41.5	2.190	2.990	13.4	22.4
4 11	15 13.79	-9 19.0	2.239	3.156	8.7	19.6	4 11	15 20.58	-23 58.3	2.110	3.000	10.5	22.2
4 21	15 8.00	-8 21.6	2.178	3.148	5.7	19.4	4 21	15 12.41	-24 4.9	2.053	3.009	7.2	22.0
5 1	15 1.05	-7 24.4	2.144	3.140	3.3	19.3	5 1	15 2.76	-24 0.5	2.023	3.017	3.7	21.8
5 11	14 53.66	-6 31.8	2.138	3.133	3.9	19.3	5 11	14 52.56	-23 46.6	2.021	3.025	2.5	21.7
5 21	14 46.57	-5 47.9	2.160	3.125	6.8	19.5	5 21	14 42.79	-23 25.6	2.048	3.032	5.4	21.9
5 31	14 40.48	-5 16.1	2.208	3.117	9.9	19.6	5 31	14 34.38	-23 1.6	2.102	3.039	8.8	22.1
6 10	14 35.95	-4 58.2	2.279	3.108	12.6	19.8	6 10	14 27.97	-22 39.1	2.180	3.045	11.8	22.3
380590	2004 RP ₂₈₈		5 6.9 273°24	8°4/30.1 18			17698	Racheldavis		5 7.0 255°77	4°6/ 2.9 18		
4 1	15 20.48	+ 2 57.8	1.900	2.740	13.6	20.8	4 1	15 17.78	- 4 55.6	2.339	3.181	11.3	18.3
4 11	15 16.19	+ 4 23.0	1.818	2.720	11.2	20.6	4 11	15 13.66	- 3 55.7	2.261	3.176	8.8	18.1
4 21	15 9.76	+ 5 43.5	1.758	2.700	9.2	20.4	4 21	15 7.89	- 2 55.9	2.207	3.171	6.2	17.9
5 1	15 1.79	+ 6 51.7	1.724	2.680	8.5	20.3	5 1	15 1.02	- 2 0.7	2.181	3.166	4.6	17.8
5 11	14 53.15	+ 7 40.4	1.714	2.659	9.6	20.3	5 11	14 53.73	- 1 14.9	2.182	3.161	5.4	17.8
5 21	14 44.79	+ 8 5.1	1.730	2.639	12.0	20.4	5 21	14 46.76	- 0 41.9	2.210	3.155	7.8	18.0
5 31	14 37.65	+ 8 3.6	1.767	2.618	14.7	20.6	5 31	14 40.79	- 0 24.3	2.263	3.150	10.5	18.1
6 10	14 32.41	+ 7 37.2	1.823	2.596	17.4	20.7	6 10	14 36.33	- 0 22.7	2.338	3.145	13.0	18.3
56640	2000 KZ ₁₉		5 6.9 252°16	0°7/ 7.4 18			43642	2002 EA ₄₁		5 7.0 341°05	5°9/10.7 18		
4 1	15 22.97	-20 15.6	1.943	2.767	14.0	19.5	4 1	15 26.65	-33 38.8	2.470	3.225	13.3	19.6
4 11	15 18.22	-20 2.1	1.846	2.752	10.9	19.2	4 11	15 20.84	-34 41.4	2.379	3.225	11.1	19.4
4 21	15 11.13	-19 37.8	1.771	2.738	7.1	19.0	4 21	15 12.75	-35 31.4	2.311	3.225	8.8	19.3
5 1	15 2.33	-19 3.8	1.721	2.723	2.9	18.7	5 1	15 2.97	-36 5.2	2.268	3.224	6.7	19.1
5 11	14 52.77	-18 23.0	1.700	2.707	1.7	18.5	5 11	14 52.39	-36 21.5	2.252	3.224	5.9	19.1
5 21	14 43.50	-17 39.6	1.705	2.692	6.1	18.8	5 21	14 42.04	-36 21.0	2.264	3.224	6.8	19.1
5 31	14 35.54	-16 58.7	1.737	2.676	10.2	19.0	5 31	14 32.91	-36 6.9	2.303	3.224	8.9	19.3
6 10	14 29.66	-16 25.3	1.792	2.659	13.9	19.2	6 10	14 25.79	-35 44.5	2.366	3.224	11.3	19.4
38775	2000 RZ ₁₀		5 6.9 244°84	1°1/ 6.3 18			254525	2005 ES ₁₁₅		5 7.0 26°46	5°6/ 3.8 17		
4 1	15 23.41	-14 41.6	2.211	3.037	12.5	18.7	4 1	15 18.76	- 9 2.8	1.163	2.038	18.0	19.6
4 11	15 18.23	-14 27.9	2.111	3.021	9.5	18.5	4 11	15 15.68	- 7 49.0	1.111	2.046	13.7	19.4
4 21	15 10.99	-14 8.9	2.035	3.005	6.1	18.2	4 21	15 9.69	- 6 31.3	1.079	2.056	9.2	19.1
5 1	15 2.25	-13 46.2	1.985	2.988	2.4	17.9	5 1	15 1.77	- 5 18.3	1.070	2.066	5.8	19.0
5 11	14 52.83	-13 22.7	1.964	2.970	2.2	17.9	5 11	14 53.28	- 4 19.2	1.084	2.077	6.9	19.1
5 21	14 43.65	-13 1.6	1.972	2.952	6.0	18.1	5 21	14 45.58	- 3 40.8	1.120	2.089	10.9	19.3
5 31	14 35.56	-12 46.2	2.007	2.934	9.7	18.3	5 31	14 39.85	- 3 26.7	1.178	2.102	15.2	19.6
6 10	14 29.28	-12 39.3	2.065	2.914	13.0	18.5	6 10	14 36.77	- 3 36.6	1.253	2.116	18.9	19.9
319329	2006 BE ₁₉₃		5 6.9 120°51	0°2/ 6.9 17			480444	2015 KA ₁₄₂		5 7.0 348°86	0°7/ 7.5 17		
4 1	15 21.49	-18 13.9	1.899	2.731	14.0	21.0	4 1	15 19.97	-20 23.8	2.078	2.903	13.2	21.3
4 11	15 16.91	-17 50.8	1.821	2.734	10.6	20.8	4 11	15 15.66	-20 9.3	1.995	2.902	10.1	21.1
4 21	15 10.14	-17 18.5	1.766	2.737	6.8	20.5	4 21	15 9.32	-19 45.0	1.934	2.902	6.6	20.8
5 1	15 1.89	-16 39.1	1.737	2.740	2.6	20.3	5 1	15 1.60	-19 12.2	1.900	2.901	2.7	20.6
5 11	14 53.11	-15 56.3	1.735	2.743	1.8	20.2	5 11	14 53.35	-18 34.0	1.893	2.901	1.6	20.5
5 21	14 44.80	-15 14.6	1.761	2.746	6.1	20.5	5 21	14 45.49	-17 54.1	1.914	2.900	5.5	20.8
5 31	14 37.85	-14 38.8	1.812	2.749	10.0	20.7	5 31	14 38.86	-17 17.1	1.960	2.900	9.2	21.0
6 10	14 32.93	-14 12.5	1.886	2.751	13.4	21.0	6 10	14 34.08	-16 47.0	2.031	2.900	12.4	21.2
18318	1981 ET ₄₃		5 6.9 42°62	7°5/29.0 18			253871	2004 BV ₅		5 7.0 196°96	5°5/ 3.0 17		
4 1	15 16.98	- 0 11.8	2.044	2.891	12.5	19.0	4 1	15 23.99	- 2 59.3	2.073	2.907	12.9	21.7
4 11	15 13.15	+ 2 0.2	1.988	2.898	10.1	18.9	4 11	15 18.54	- 2 4.8	1.996	2.905	10.1	21.5
4 21	15 7.57	+ 4 9.4	1.958	2.905	8.1	18.7	4 21	15 11.09	- 1 12.0	1.942	2.901	7.3	21.3
5 1	15 0.86	+ 6 7.2	1.955	2.912	7.5	18.7	5 1	15 2.26	- 0 26.3	1.916	2.897	5.6	21.2
5 11	14 53.82	+ 7 45.9	1.979	2.920	8.7	18.8	5 11	14 52.93	+ 0 7.4	1.916	2.892	6.4	21.2
5 21	14 47.22	+ 9 0.3	2.028	2.928	10.9	19.0	5 21	14 43.98	+ 0 25.5	1.944	2.886	9.0	21.4
5 31	14 41.76	+ 9 48.3	2.101	2.936	13.3	19.1	5 31	14 36.26	+ 0 26.2	1.997	2.879	12.0	21.5
6 10	14 37.96	+10 10.5	2.192	2.944	15.4	19.3	6 10	14 30.39	+ 0 9.4	2.071	2.872	14.7	21.7
409016	2003 AG ₈₄		5 7.0 91°70	3°3/ 4.8 18			309696	2008 FA ₆₅		5 7.0 24°95	2°4/ 5.0 17		
4 1	15 25.05	- 9 52.8	1.841	2.679	14.1	21.4	4 1	15 17.64	-11 45.9	2.235	3.076	11.8	20.4
4 11	15 19.26	- 9 9.6	1.790	2.706	10.6	21.2	4 11	15 13.63	-11 4.9	2.160	3.078	8.9	20.2
4 21	15 11.41	- 8 24.3	1.762	2.732	6.9	21.0	4 21	15 7.90	-10 20.0	2.108	3.081	5.7	20.0
5 1	15 2.29	- 7 41.2	1.761	2.759	3.7	20.9	5 1	15 1.03	- 9 34.6	2.084	3.084	2.8	19.8
5 11	14 52.91	- 7 4.9	1.788	2.784	4.2	21.0	5 11	14 53.77	- 8 52.7	2.087	3.087	3.3	19.9
5 21	14 44.23	- 6 39.2	1.842	2.809	7.5	21.2	5 21	14 46.88	- 8 18.0	2.118	3.090	6.3	20.1
5 31	14 37.06	- 6 26.5	1.921	2.834	10.9	21.5	5 31	14 41.05	- 7 53.7	2.175	3.093	9.5	20.3
6 10	14 31.95	- 6 27.8	2.023	2.857	13.8	21.7	6 10	14 36.83	- 7 41.5	2.254	3.097	12.3	20.5
230837	2004 PO ₈₈		5 7.0 198°57	5°3/11.1 17			480514	2015 ME ₆		5 7.0 311°87	3°2/ 9.5 16		
4 1	15 26.07	-34 5.4	2.438	3.193	13.5	21.2	4 1	15 18.50	-27 58.1	2.042	2.848	14.1	20.9
4 11	15 20.32	-34 30.5	2.342	3.189	11.2	21.1	4 11	15 14.88	-27 48.8	1.939	2.828	11.3	20.7
4 21	15 12.34	-34 40.3	2.267	3.185	8.7	20.9	4 21	15 9.03	-27 23.5	1.856	2.808	8.1	20.5
5 1	15 2.76	-34 32.5	2.218	3.181	6.4	20.7	5 1	15 1.57	-26 41.9	1.798	2.789	4.8	20.2
5 11	14 52.51	-34 6.9	2.195	3.176	5.3	20.7	5 11	14 53.37	-25 45.9	1.767	2.769	3.3	20.1
5 21	14 42.60	-33 25.8	2.201	3.170	6.4	20.7	5 21	14 45.46	-24 39.8	1.763	2.750	5.8	20.2
5 31	14 33.97	-32 34.0	2.234	3.163	8.7	20.8	5 31	14 38.79	-23 29.8	1.785	2.732	9.4	20.4
6 10	14 27.35	-31 37.6	2.291	3.156	11.3	21.0	6 10	14 34.11	-22 22.4	1.830	2.714	12.9	20.5
126983	2002 FO ₂₇		5 7.0 155°30	1°1/ 7.8 18			246103	2007 ER ₁₆₀		5 7.0 72°46	11°6/11.2 18		
4 1	15 21.45	-20 38.2	2.523	3.334	11.5	20.3							